Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

February 16, 1959

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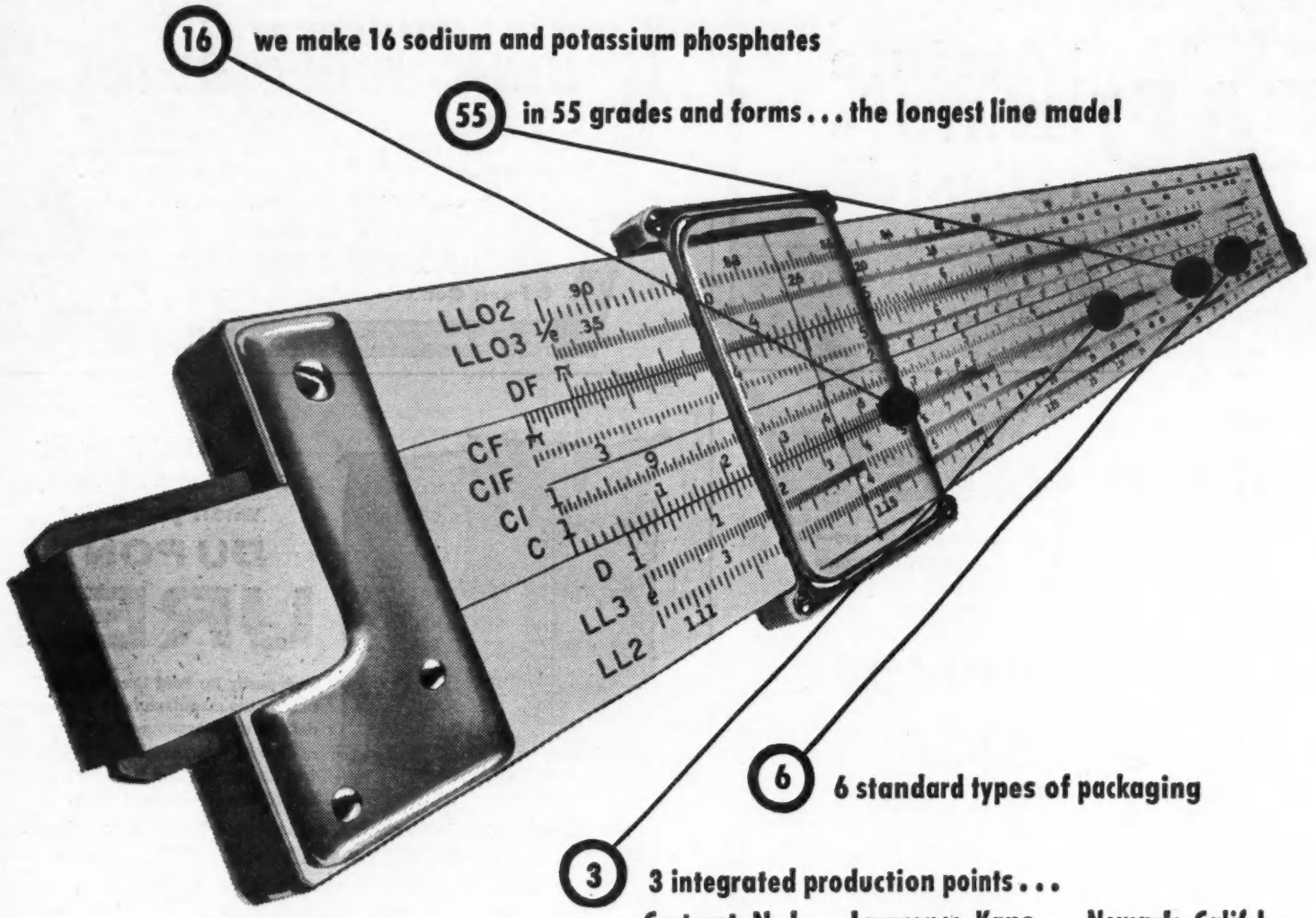

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Oil, Paint and Drug Reporter

Vol. 175 No. 7 30 Church St., New York 7, N. Y. February 16, 1959

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MANAGES ANSUL INT'L UNIT: L. T. Plouff, named vice-president and general manager of Ansul International Corporation, S. A., the new foreign-based subsidiary set up by Ansul Chemical Company, Marinette, Wis., to handle distribution of its products to all countries outside the United States.

Chemical Industry Watching As FDA Sets March 7 Deadline For Additives Rules Issuance

The chemical industry can circle March 7 on its calendar. This is the deadline Food and Drug Administration has set for itself for putting out the rules—in final form—implementing the new food additives law. What's more, on this same date, controls will start to operate against the newer additives being offered the food industry. FDA is now weighing a mass of comments, gripes and assorted suggestions for changes in the regulations (which the agency published last December). This pile of material is being sifted for the purpose of choosing recommendations with the greatest merit, and incorporating them in the final draft of the rules.

FDA will issue the new regimen without public hearings. The docket for receipt of written comments on the draft was closed nine days ago (February 7).

The Trend of Criticism

The trend of criticism most noticeable in the first perusal of the correspondence several weeks ago (OPD, 1/26/59) continued until the closing of the docket.

This was directed against the 100-to-1 ratio safety factor proposed by FDA for fixing the level of tolerances. Almost every firm or organization that discussed the regulations generally is urging FDA to drop this factor.

Criticism is so widespread as to raise doubts that the FDA will be able to sustain the argument that the 100-to-1 safety factor is "generally recognized by experts" as an acceptable measure of safety.

Among organizations asking the agency to delete all reference to this factor from the regulations are: Manufacturing Chemists Association, Pharmaceutical Manufacturers Association, National Agricultural Chemicals Association, the Animal Health Institute, Society of the Plastics Industry and National Canners Association.

If volume is any measure of the merits of criticism, FDA will also have to give serious consideration to changing its definition of the term "safe" as used in the regulations.

Many of the comments are directed at this section because it is feared the agency is giving this term too narrow a meaning.

FDA proposes to define "safe" as meaning "that there is convincing evidence that no harm can come from the intended use of the food additive."

Illustrative of the objections from in-

—Continued on page 67

HEADS MERGED CONCERN: George Gelman, former vice-president and general manager of Vico Products Company, who has been elected president of Bioferm Corporation, Wasco, Calif., the new company emerging from the consolidation of Bioferm Corporation and Pacific Yeast Products, Inc.

FDA Fingers 7 More Colors As 'Suspicious'

Food and Drug Administration is putting the finger on seven more certified coaltar colors. Subject to possible control-tightening action, they are in the "D&C" group—authorized for drug and cosmetic use, but not in foods.

They are identified as D&C Orange No. 5, D&C Red No. 19, D&C Red No. 9, D&C Red No. 10, D&C Red No. 33, D&C Orange No. 17, and D&C Yellow No. 7.

Color manufacturers and representatives of the consuming industries have been apprised of the action and invited to Washington to consider the status of the colors at a meeting February 27 with FDA offcials.

When Colors Were Listed

The addition of these colors to the group that FDA considers to be potentially harmful came as the senate took action last week to sanction the substitution of a less harmful citrus Red No. 2 for tinting Florida and Texas oranges for the outlawed FD&C Red No. 32 used for this purpose for many years.

The substitution under the bill S 79, which the senate approved unanimously and sent to the house for concurrent action, is for a temporary period until congress passes overall legislation controlling the use of artificial colors in foods, drugs and cosmetics, or until September 1, 1961, whichever comes first.

The overall legislation is currently in the study and preparation stage at the Food and Drug Administration and not yet ready for introduction in congress.

Officials want to get as close to a general agreement on details of the legislation with all factions—manufacturers and consumers — as is possible before presenting the bill to congress.

"We want to take into account all the suggestions of industry and make our bill as near to something in which we are all agreed as possible," Deputy Commissioner John L. Harvey told OPD. "We have found that if you spend more time getting lined up, you will spend less time on the bill in congress."

He added that while there is a general understanding with the color manufacturers on the framework of the legislation, the agency also wants to sit down with representatives of the food, drug and cosmetics industries and go over the legislation with them before sending it to congress.

Indications are that it may be several weeks before this stage of developments on the bill is reached.

The seven coaltar D&C colors which will be discussed at the meeting later this

—Continued on page 67

Carbide Putting Up Visking Film Factory

Union Carbide Corporation, New York, is building a polyethylene film plant near Cartersville, Ga., to be operated by Visking Company, a Carbide division. The plant is scheduled to be completed in July.

In addition to polyethylene film, Visking also makes cellulose and plastic food casings.

An important use for Visking's polyethylene film, which is marketed under the trade mark "Visqueen," has been in the fabrication of balloons to carry scientific instruments into space for recording cosmic rays and weather data.

Its major outlet, however, is in the flexible packaging field where it is used for wrapping food products and produce, textiles, hardware, chemicals, and many other items. The film also is widely used in the construction industry as a vapor barrier and for temporary enclosures, and by the agricultural industry for plastic silos.

This will be the fourth plastics film plant operated by the Visking division.

Howard R. Medici, president of Visking, said that the new polyethylene plant is being built on a fifteen-acre industrial site just southeast of Cartersville, at the intersection of the Louisville and Nashville Railroad and Old Mill road. When in full production, the plant will employ about 100 persons.

Wyandotte Signs to Buy Tesco's Atlanta, Ga., Plant

Wyandotte Chemicals Corporation, Wyandotte, Mich., has completed negotiations for purchase of the Atlanta, Ga., plant of Tesco Chemicals, Inc. The purchase includes the "Tes-Ted" line—dishwashing, maintenance cleaning and automotive products.

Wyandotte will assume operation of the Atlanta plant March 1, and plans to continue the manufacture of principal "Tes-Ted" products; also, Wyandotte will manufacture a complete line of its J. B. Ford Division products at the plant.

Adhesive Installation Opens

B. F. Goodrich Industrial Products Company, a division of B. F. Goodrich Company, Akron, Ohio, has opened its new adhesives plant in that city. According to Goodrich, production at the new facility will feature a new adhesive that is "a major advance in bonding vinyl plastic to steel."

American Potash Plans Big Boric Oxide Facility

American Potash & Chemical Corporation, Los Angeles, plans to build what it calls the first large-scale commercial plant to produce boric oxide.

The facility will be located at the main American Potash plant at Trona, Calif. Construction will start shortly, with output scheduled for late this year. Estimated cost of the facility is $800,000. The Trona plant is also scheduling an increase in its capacity for making boric acid, the starting material.

DuPont Will Erect 'Orlon' Unit in Holland

E. I. duPont de Nemours & Co., Wilmington, Del., will build a multi-million-dollar plant to manufacture "Orlon" acrylic fiber at Dordrecht, Netherlands. The plant, to be operated by a duPont subsidiary that will be formed soon in Holland, will produce "Orlon" staple and tow mainly for customers in Europe, including the United Kingdom.

The facility will have a capacity of about 15 million pounds a year. Arthur H. Geil will be transferred from Wilmington to be managing director of the new Dutch company.

Construction work will begin later this year, and start-up of operations is scheduled for the last quarter of 1961.

The "Orlon" plant is duPont's third new manufacturing facility in Europe. A paint plant is being built in Malines, Belgium, and construction of a neoprene synthetic rubber plant near Londonderry.

DuPont has manufacturing subsidiaries in Argentina, Brazil, Canada, Chile, Cuba, Mexico and Venezuela.

Carborundum Is Building

Carborundum Company, New York, has begun construction of a $750,000 pilot plant for its research and development division in Niagara Falls, N. Y. The firm says that the new unit should go into operation about the end of the year.

Copper for the Russians Runs Into a Closed Door

The United States has slammed the door shut on further exports of copper to the Soviet bloc. Effective February 20, all copper and copper-base alloys will require validated export licenses for shipment to all countries except Canada.

The action, taken last week by the Bureau of Foreign Commerce, places copper in the same status in which it existed prior to November 10, and gives emphasis to a developing policy, within the Department of Commerce at least, against easing restrictions of trade with Russia.

Some thirty-three copper and copper-based alloy items have been added to the positive list by the order of BFC. This means that these products can only be exported from the US after an individual license has been obtained.

Shell Chemical Unit Puts Out Acroleins

Shell Chemical Corporation, New York, has just completed manufacture of a batch of acrolein derivatives at its spanking new market development unit, built at Martinez, Calif.

The plant, costing about $2 million, is designed to make semi-scale (more than pilot and less than commercial) quantities of industrial chemicals which look promising to Shell's researchers.

Chemical Makers Weather St. Louis Tornado Unscathed

Chemical makers of St. Louis, Mo., came through the havoc of last week's tornado without suffering so much as a scratch.

With the exception of a "temporary power failure" at Allied Chemical Corporation's General Chemical Division facility in East St. Louis, producers throughout the area said that there was no plant damage incurred nor, for that matter, did the tornado even hold up production.

Even the Allied unit, which manufactures aluminum sulfate and sulfuric acid, said that production "was not affected" despite the temporary power failure.

The two concerns with the biggest concentration of facilities in St. Louis—Monsanto Chemical Company and National Lead Company—reported that the tornado skirted their facilities and in one instance probably probed between two units on opposite sides of town, without "even touching a shingle of a plant."

Monsanto has four different groupings of units in St. Louis: one plant in the metropolis proper, another in East St. Louis, a third outside of town and the offices of the firm are also out of town.

National Lead has units in St. Louis proper and East St. Louis manufacturing lead pigments, titanium dioxide, lead chemicals, steel packaging, fabricated lead products and barium pigments.

Two other chemical firms in the area—Mallinckrodt Chemical Works, with headquarters and manufacturing facilities there, and American Agricultural Chemicals with a fertilizer plant in East St. Louis—also reported no damage nor work stoppage.

GSA to Re-Offer Its Quinine; This Time US Firms May Bid

General Services Administration is not going to limit the sale of its stockpiled quinine to European companies after all. Instead, the agency is planning to re-offer the material soon to give domestic interests a chance to bid for the drug. Some 13,860,000 ounces of quinine are being held by the government in the national stockpile. The stocks are accumulations of government purchases made during and immediately following World War II.

About six months ago, however, it was decided by the government that quinine is no longer needed for future emergencies. The reason: atabrine, an adequate substitute, is readily available in this country.

GSA Plans First Disclosed in August

In a notice to the trade (OPD, 8/11/58), GSA revealed its plans to sell the entire lot to one or more European companies or to a group of European concerns. The agency said it was limiting the sale to Europe because it felt that there is no market for quinine in this country.

The agency pointed out that buyers would have to reprocess the quinine to meet present standards. Since it knew of no facilities in this country for reprocessing quinine, GSA said it was confining the drug sale to European interests.

It was also thought that Europe should get the first crack at the supply because demand for quinine there is still relatively large, while consumption in this country is steadily decreasing.

It developed later, however, that there is an interest in the stockpiled quinine in this country and there are US firms who would like an opportunity to participate in the bidding.

GSA gave no details as to this development beyond the admission that it had erred in previously believing that no one here wanted the quinine or had the facilities to reprocess. Instead it simply announced that it is withdrawing its earlier notices of proposed sale.

The expectation is that GSA will re-offer the quinine for sale at an early date with an opportunity given to domestic interests to bid for the supply.

Amphetamine Inhalers Are Rx Items Now

Nasal inhalers containing basic amphetamine may now be sold only by prescription, Food and Drug Administration said last week. Previously, this type of inhaler—an aid to relieving nasal congestion—has been sold directly to the public.

FDA said it has received evidence of misuse of the inhalers for non-medical purposes by persons who removed the wicks and used the drug as a substitute for amphetamine tablets. The tablets have always been restricted for prescription sale. Nasal inhalers containing other drugs are not affected by the ruling.

Olin Buys Insurance For Aluminum Project

Taking no chances of anything going awry on their multi-million-dollar aluminum project in Guinea, West Africa, Olin Mathieson Chemical Corporation and Omaf Corporation (its wholly-owned subsidiary) have bought investment guarantee contracts from the International Cooperation Administration.

The American firms have joined with French, British, Swiss and West German interests to form a new company, known as FRIA Compagnie Internationale pour la Production de l'Alumine, to construct and operate what will be one of the world's largest plants for the reduction of bauxite into alumina. It is scheduled to be in operation prior to 1962.

The project will cost more than $133 million, and involves building ninety-six miles of railroad from the bauxite mines

—Continued on page 49

Goodrich Chemical Going Into Polyurethane Business

B. F. Goodrich Chemical Company, division of B. F. Goodrich Company, Cleveland, Ohio, is entering the polyurethane field through the manufacture of a new rubbery plastic called "Estane VC."

Goodrich says that the new material—being produced on a semi-commercial scale at its Avon Lake, Ohio, plant—offers high tensile strength, solvent resistance, low air permeability and abrasion resistance.

Mallinckrodt Nuclear Corp. Shipping Uranium Dioxide

Mallinckrodt Nuclear Corporation has begun shipment of enriched uranium dioxide to Babcock & Wilcox Company for use in the world's first nuclear merchant ship, Savannah.

B&W will supply the nuclear propulsion system, including the reactor, for the ship, which represents the combined efforts of the Atomic Energy Commission and the Maritime Administration.

In all, Mallinckrodt Nuclear will ship 20,000 pounds of uranium dioxide to B&W's nuclear facilties plant at Lynchburg, Va., during the next five months, the firm says. The material, in powder form, will be compressed into pellets by B&W for incorporation in fuel elements for the Savannah reactor. It is enriched to slightly more than 4 percent in uranium-235, the fissionable isotope.

The Week's Price Changes

Carnauba Wax, Coconut Oil, Copra, Peanut Oil Advanced. Lead, Mineral Orange, Sodium Molybdate Reduced.

Prices Advanced

Bone meal, $2.50 per ton (p. 43).
Carnauba wax, crude, 1c. to 2c. per lb. (p. 61). Refd., 2c. per lb.
Coconut oil, ¼c. per lb. (p. 61).
Copra, $5 per ton (p. 61).
Lard, cash, ⅛c. per lb. (p. 61).
Peanut oil, crude, ¼c. per lb. (p. 61). Refd., ¼c. per lb.
Soybean oil, crude, ⅛c. per lb. (p. 61). Refd., ⅛c. per lb.

Prices Reduced

Beeswax, refd., 2c. per lb. (p. 61).
Cocoa butter, 1c. per lb. (p. 61).
Cod oil, ½c. per lb. (p. 61).
Cottonseed meal, $2 per ton (p. 61).
Lead, ½c. per lb. (p. 39).
Lead oxide, ½c. per lb. (p. 58).
Linseed meal, $1 per ton (p. 61).
Litharge, ½c. per lb. (p. 58).
Menhaden oil, crude, ½c. per lb. (p. 61).
Mineral orange, ½c. per lb. (p. 58).
Rapeseed oil, ¼c. per lb. (p. 61).
Sodium molybdate, 4c. per lb. (p. 39).
Soybean meal, $1 per ton (p. 61).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Feb. 13, 1959	Feb. 6, 1959	Feb. 14, 1958
111.10	110.10	108.67

Plastics Gain in Construction

Plastic manufacturers, already working their way deep into the coated container market, are also making strong inroads into the construction market. So strong is this movement, in fact, that a spokesman for one major plastic manufacturer pictures the construction future as a "plastic age" in architecture. Felix N. Williams, vice-president of Monsanto Chemical Company, St. Louis, Mo., addressing a meeting of the reinforced plastics division of the Society for the Plastics Industry a fortnight ago in Chicago, foresaw plastic sales to the construction industry reaching a $2 billion level by 1966.

Equals 1958's Sale of All Plastics

This would be equivalent, he noted to last year's (1958) total sale of plastics for all purposes.

He added that in attaining that predicted sales level, plastics would account for 10 percent of total building materials in sales in 1966, estimated at $20 billion on the basis of economic forecasts.

He also reported that sales of plastics and resin products as construction materials in 1958 are estimated to have topped $500 millions or slightly more than 3 percent of total building materials sales.

"Builders today are using far more plastics in construction than even they realize," Mr. Williams said. Wistfully, he added that even more use would be made of plastics at this time if "builders were more fully informed about what is available to them."

ASS'T SOLVENTS MANAGER: Jerome A. Ryan, named assistant manager of solvents sales in its chlorinated products division by Diamond Alkali Company, Cleveland, Ohio.

Amine-Borane Listings Are Lowered by Callery

Callery Chemical Company, Callery, Pa., has cut the price of three amine-borane compounds.

New reduced prices per pound, in 100 pound lots are: pyridine-borane $14, dimethylamine-borane $20, and trimethylamine-borane $22.

Purchased in lots of less than 100 pounds, prices range to $1.50 per pound more on each compound. All prices are f.o.b. Callery, Pa.

The amine-boranes are used as reducing agents in non-aqueous solvents, polymerization catalysts, anti-oxidants and stabilizing agents.

Linde Cuts Prices on Some Rare Gases, Raises Others

Linde Company, division of Union Carbide Corporation, New York, has revised the schedule of its prices for rare gases, effective March 1.

Krypton and zenon prices are being reduced by 20 to 40 percent. However, the prices of argon, neon, and helium and combinations thereof are being raised from $5.50 to $6.50 per litre in small quantities.

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OIL, PAINT AND DRUG REPORTER, Vol. 175, No. 7, February 16, 1959. Published weekly on Monday except semi-weekly the last week in February and the last week in August by Schnell Publishing Company, Inc., 30 Church Street, New York 7, N. Y., U.S.A. Second-class postage paid at New York, N. Y. Subscription prices—United States and Possessions, $5 a year; Canada and Newfoundland, $7; other countries, $12.
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TEXAS-US CHEMICAL CHANGING PRESIDENTS: Arthur K. O'Keefe (left), who on March 4 will become president of Texas-US Chemical Company, New York, jointly owned by the Texas Company and United States Rubber Company. Mr. O'Keefe, associated with US Rubber's Naugatuck Chemical Division since 1940, will succeed William P. Gee (right), who has been elected vice-president in charge of foreign petrochemicals for Texaco.

Drug Research Breakthroughs Seen Quadrupling Sales by 1975

A heart disease drug by 1962. A cancer cure by 1965. And prescription drug sales to quadruple by 1975. These are the glowing images a top drug executive sees in his crystal ball. And going the medium's trade one better, the executive, George B. Stone, manager of Chas. Pfizer & Co.'s J. B. Roerig division, backs up his prophesies with the up-to-date market researcher's own devices: statistics and charts. Speaking at the central region meeting of the Pharmaceutical Manufacturers Association last week in Chicago, Mr. Stone told the manufacturers that they might look for "ethical drug sales to pass the $2 billion mark in 1960." [Manufacturers' sales of prescription drugs last year were about $1.8 billion.]

PLASTICS MARKETING AID: Byron R. Wardle, appointed marketing supervisor of "Plaskon" plastics and resins by the plastics and coal chemicals division of Allied Chemical Corporation, New York.

Drawing his picture of the future—a period of "boundless medical advances in an era of unprecedented health"—in broadly sweeping almost utopian terms, Mr. Stone's predictions also included:

Mr. Stone's Predictions

- Major new drugs for treating mental disease by 1962.
- An effective vaccine for the common cold by 1962—at the latest. (Administration and dosage will be about the same as the Salk vaccine—three initial injections with a "booster shot" every year.)
- An important breakthrough in rheumatism and arthritis diseases by 1962 or soon after.

If this last prediction comes true, Mr. Stone feels, it will "mushroom the market the way cortisone and its sister drugs did from 1950 to 1956."

Wrapping all of the predictions up, Mr. Stone said that in twenty years death from infectious disease will be "rare" in this country.

To back this up he unrolled his sack of statistics. Assuming, he said, a major discovery in cancer treatment will be announced by 1965, the cancer death rate may fall from an expected 1.55 per thousand in 1965 to 0.39 per thousand in 1975, paralleling the decline of tuberculosis

—Continued on page 49

Polypropylene Units To Go Up in France

Montecatini, the Italian chemical giant, has licensed two major French industrial groups—Pechiney and La Societe Normande de Matieres Plastiques—to produce polypropylene in France under Montecatini-Ziegler patents.

The two French concerns are producers of chemicals and plastics. The Charbonnages de France has a sizable interest in La Societe Normande.

Two plants, each with an annual capacity of 22 million pounds, will be built in France to produce the new plastic. Exact location of the facilities has not been disclosed. Construction will begin immediately and both plants are slated to go on stream next year.

Wax Corp. of America Now a Holding Company

Wax Corporation of America, New York, has become the personal holding company of Gilbert J. Tilbury. International Wax Refining Company of Valley Stream, L. I., has taken over the production of ozokerite, ceresin and microcrystalline waxes.

F. W. Steadman Company of New York has taken charge of paraffin and microstalline wax exports. Edward H. Hess of Uniondale, L. I., is now responsible for domestic of paraffin wax sales.

Mercury Aid Really Worked! That's What Justice Department Says of Government's Effort

The government's mercury program really worked! That's what the Department of Justice says in a report to congress which gives a clean bill of health to the mercury industry and to the action the government took to stimulate production from the time the Korean war began until last year. The effort, says Justice, broadened the "competitive base" of the business in this country and made American consumers less reliant on foreign producers for their quicksilver needs.

"Our survey of the government program indicates that in operation it was fair and non-discriminatory," the report states.

"The denials of applications for exploration assistance, for example, were mainly based on sound geological factors," it goes on.

How the Producers Gained

"In that program, the three leading producers of 1953 all received contracts. Two of them made certified discoveries. Of the four other companies which joined the ranks of the seven leaders in 1957, three received contracts. Their resulting discoveries helped raise them to the status of leading producers.

"In addition, eight smaller companies made discoveries under exploration contracts. These eight hold collectively more than half of estimated recoverable ore reserves derived from the exploration program. Their enhanced reserve position suggests a possible future improvement in their competitive standing."

The Department of Justice adds that despite these improvements in the competitive picture in the domestic industry, it must be concluded that, as in the case of the tungsten industry, the future of the mercury industry "is precariously dependent, not on domestic competition, but on the course of operations of the richer, more economically worked foreign supplies."

The report was made in accordance with the section of the defense production act which requires that the department report every three months on competitive aspects of industries which have been aided by the government through voluntary agreement and expansion programs.

Domestic mercury production was at its lowest level in 100 years in 1950 when the Korean emergency arose and requirements for the metal increased rapidly. Through programs of exploration, tax incentive, and offers of government purchases, the industry developed to the point where last year it was supplying about three-fourths of annual consumption.

Fome-Cor Corporation Elects President, Directors

Harry H. Balthaser, assistant director of marketing for Monsanto Chemical Company's plastics division, has been elected president of the newly-formed Fome-Cor Corporation (OPD, 2/9/59).

Directors of the firm—jointly owned by Monsanto, St. Louis, Mo. and St. Regis Paper Company, New York—include Mr. Balthaser; Reginald L. Vayo, vice-president of St. Regis and general sales manager of its Kraft Division; Gardiner Lane, assistant vice-president of St. Regis; Russell Wilson, vice-president and general manager of Monsanto's domestic subsidiaries and affiliates division, and R. K. Mueller, vice-president and general manager of Monsanto's plastics division.

Other officers elected were Harold F. Stevens, comptroller of St. Regis since 1956, who will be treasurer and A. E. Bemarkt, business systems design coordinator for Monsanto's plastics division, who will be assistant treasurer. Harrison F. Lyman, jr., a member of Monsanto's law department since 1958, will be secretary.

FATS AND OILS MANAGER: Albert Aschwanden, who has joined Archer-Daniels-Midland Company, Minneapolis, Minn., as manager of the fats and oils department.

Pennsalt Enlarging Perchlorate Capacity

Pennsalt Chemicals Corporation, which completed its first ammonium perchlorate plant only last October, is going ahead with plans for a major expansion of the four-month-old facility at Portland, Ore.

The expansion will add several thousand tons of capacity to the installation. Ammonium perchlorate is the most widely used oxidizer for high-energy solid-state missile propellants.

Coincident with this expansion will be a 25 percent increase in capacity for the adjacent sodium chlorate unit which provides the principal raw material for ammonium perchlorate. Sodium chlorate is also used in pulp bleaching and weed killing. Upon completion, total investment in this expansion will amount to about $2 million.

Pennsalt Chemicals has been producing sodium chlorate at Portland since

—Continued on page 67

Pfizer Research Outlay To Be $13 Million in '59

Chas. Pfizer & Co., Brooklyn, N. Y., expects to spend about $13 million this year (about 6 percent of its sales) for medical, chemical and agricultural research.

Newest drug to come out of the company's research program is "Niamid," a new drug for treating depressed mental patients. Still in the early stages of development, "Niamid" is now undergoing clinical tests.

Diamond Modernizing Chlorine-Caustic Plant

Diamond Alkali Company is spending some $2 million to modernize its chlorine-caustic soda producing facilities at Painesville, Ohio.

The project, already in progress and slated for completion this fall, calls for the replacement of the Tucker-Windecker type cells at Painesvile with 30,000-ampere rectangular cells.

The new units, capable of producing the same quantity of chlorine and caustic, will shrink the space formerly required by 60 percent as well as the number of electrolytic cells from 2,432 to 144.

Monsanto Preservative First to Get Additives Law Okay

The first chemical preservative to meet approval under the new food additives law has been cleared by Food and Drug Administration.

The preservative is a product named "Santoquin," marketed by Monsanto Chemical Company, St. Louis, Mo., to treat sixteen major forage crops during the process by which they are dehydrated for sale to mixed feed manufacturers.

Giving clearance to two petitions filed by Monsanto, FDA has authorized tolerances for the chemical in the dehydrated crop and in the meat of livestock and poultry and in eggs.

The agency has fixed a tolerance of 150 parts per million as the amount allowed to remain on the dehydrated feed.

Another tolerance of one-half of one part per million has been set as the maximum amount of the material that will be permitted in uncooked meat or meat by-products of livestock feeding on the treated forage.

A similar tolerance is to be allowed for residues of the chemical in uncooked muscle meat and eggs of poultry that have been fed poultry feed treated with the additive. The order also permits a tolerance of three parts per million for residues of the chemical in the uncooked liver and fats of poultry.

The purpose of the chemical treatment of the forage crop is to protect the dehydrated forage from loss by oxidation of naturally occurring carotenes and vitamin E.

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Phosphates Entering The War on Cavities

Surgeon-General Leroy E. Burney has come up with another weapon against tooth decay: Harmless mineral phosphates, which, added to children's diets, may cause "significant reduction in caries."

Last week, Dr. Burney told the Chicago Dental Society of the success of recent experiments using the phosphate diet supplements. He also warned the group that dental, medical and public health interests have "unfinished business" in promoting wider acceptance of municipal water fluoridation. (Also see story in next column).

PHS Legislation Aim: A New Research Unit

There may soon be an eighth institute within the Public Health Service —a National Institute for International Medical Research. A measure providing for such a unit is now in the senate legislative mill, put there by Sen. Lister Hill of Alabama, and supported by fifty-eight other senators.

The measure would allow for appropriations of $50 million annually to attack world problems of health.

Its aim is to accomplish four primary objectives, said to be in the greatest need today:

- A freer flow of knowledge and information among scientists and research workers of all nations.
- A coordination of research to avoid, to the maximum extent possible, duplication of research efforts here and abroad.
- A vastly expanded program of exchange of doctors, scientists, research workers, and technicians between this country and abroad by means of travel, study and conferences.
- An expanded program of training of additional research scientists and technicians.

Sen. Hill said that the bill has been given the short title of "Health for Peace Act" because sponsors feel that it would be a major contribution to peace if enacted.

Hercules Gets Write-Off Okay on Rocket Fuel Work

Hercules Powder Company has been issued a certificate of necessity by the Office of Civilian Defense Mobilization covering a project at Bacchus, Utah, for research and development of solid propellants and rocket engines.

The cost of the project, which has been certified as eligible for rapid write-off, is $4,608,250. Of this amount, 65 percent can be amortized over a period of about five years.

Fluoridation of Water Supplies Losing Out and HEW Is Worried; 'Militant Minority' Gets Blame

Fluoridation of municipal water supplies is slipping and it has the Department of Health, Education and Welfare concerned. Secretary Arthur Flemming blames it on the efforts of a "militant minority." What's needed, he says, is a "militant majority" to give this health-aid program another push. The HEW chief reports that a "significant setback" in the progress of the fluoridation program has occurred in the last two years, despite the fact that controlled fluoridation has been proved over and over again to be an inexpensive and completely safe means of preventing 65 percent of dental decay.

Mr. Flemming declares that only one out of every four people in the country today has this protection. "Moreover—and this is the most disturbing fact of all —the proportion of the population not benefitting from this remarkable health measure is actually increasing," he says.

Five Compounds Are Used

Presently, five fluoride compounds are used in treating potable water by communities: sodium fluoride, sodium silicofluoride, hydrofluosilicic acid, ammonium silicofluorides and fluorspar.

Costs of fluoridation vary according to the amount and kind of compound required, but the average cost is 10 cents a year per person. A device developed by Public Health Service engineers now enables communities to use fluorspar, further reducing the cost by two-thirds.

At first glance, the acceptance of fluoridation during the last eight years appears satisfactory. A closer look, however, reveals that most of the gain has been made in the larger cities.

Sixty-six percent of the nation's cities with populations of over a half million, and 32 percent of the cities between 10,000 and 500,000 have fluoridation programs.

By contrast, only 17 percent of those having populations of 2,500 to 10,000 and 5 percent of communities with populations of less than 2,500 have such programs. Consequently, most of the people

—*Continued on page 67*

TUSCOLA GENERAL MANAGER: Clifford E. Oman, appointed general manager of its petrochemical plant-complex at Tuscola, Ill., by U. S. Industrial Chemicals Company, a division of National Distillers & Chemical Corporation.

CCDA Will Ponder Over Diversification

Seven separate panels plus a study workshop, all dedicated to defining just what diversification in industry is, will compose the major portions of the Commercial Chemical Development Association's annual meeting set for the Statler-Hilton hotel in New York on March 4 and 5.

Following registration and a business meeting on March 3, CCDA will charge right into the problem with a morning panel on March 4 entitled "The Challenge of Diversification—What? Why? By Whom? How?"

Capping the morning session will be two

—*Continued on page 55*

Consulting Chemists to Hold Professional Services Panel

Association of Consulting Chemists & Chemical Engineers is sponsoring a panel discussion on "Selling Professional Services" March 10 at the Shelburne hotel, New York.

Participants will be Paul B. Slawter, jr., vice-president of G. M. Basford Company; Dr. Robert Heggie, vice-president and director of research and development, American Chicle Company; Charles Davidoff, metallurgical and chemical consultant, and Richard L. Moore, manager of chemical public relations for W. R. Grace & Co.

Letterhead reservations with check to the order of the association in the amount of $5 per person must be received by the association, 50 East 41st street, New York 17, not later than March 5.

Penick Forms New Unit

S. B. Penick & Co., New York, has formed a product development department. Heading up the new unit is a vice-president of the firm, Giles St. Clair, with George Motoasca assuming the post of assistant manager.

US Must Adjust To Changing Pace If It's to Survive

Does the United States have cause for alarm in view of our lag in the missile race? No. Why? Because, "whatever we lack in missile capacity, we have an overwhelming superiority in blunderbusses and slingshots—and we have men that know how to use them!"

In this caustic vein an American nuclear physicist last week told a meeting of US chemical makers that the nation has to adjust itself to the changing pace of the day if it wants to survive. The scientist is Dr. John R. Dunning, professor of physics and dean of the school of engineering at Columbia University.

US Accepting Second-Rank Status

Speaking at a meeting of the Synthetic Organic Chemical Manufacturers Association in New York, Dr. Dunning warned that the US, instead of rising to the highly competitive world situation and fighting, appears "to be making a series of decisions, all of which tend toward the passive acceptance of second-rank status in the world."

Invoking what he called the "Law of Inverse Sensitivity"—as a nation becomes less hungry and less virile, its emotional defensive mechanisms become more efficient—Dr. Dunning argued that even our latest efforts to "withdraw from historical reality would not be so disturbing if only we were allowing ourselves the possibility of effective future action. But we are not. It is bad enough to economize on safety now," he warned vehmently, but "it is far worse to economize now on our future survival."

According to Dr. Dunning, the nub of the whole problem lies with our responsibilities to tomorrow. "To assure that there will be a future," he said, "we must have vigorous programs now in two fields: research and education. Of these, education in science and engineering is the more fundamental, because without education there can be no research."

Working his way from bottom to top of the educational ladder, Dr. Dunning

—*Continued on page 46*

Chemical Men Feel Better Over the PPG Strike News

Chemical makers are ready to start breathing easier again, now that it looks as though the Pittsburgh Plate Glass Company strike is about to be concluded by negotiation.

At week's end, a conditional memorandum of agreement had been signed, contingent upon acceptance by the 13,000 members of the United Glass and Ceramic Workers Union in seven cities.

The strike, more than four months old, had put quite a crimp in soda ash shipments to PPG's subsidiary, Columbia Southern Chemical Corporation. It had also affected a number of other chemicals (OPD, 1/19/59).

Association Meetings

Air and Water Pollution Abatement Conference, sponsored by Manufacturing Chemists' Association, Netherlands Hilton hotel, Cincinnati, Ohio, March 17-18.

American Chemical Society, national meeting, Boston, Mass., April 5-10.

American Institute of Chemical Engineers, Chalfonte-Haddon Hall, Atlantic City, N. J., March 16-20.

American Institute of Chemists, annual meeting, Traymore hotel, Atlantic City, N. J., May 6-8.

American Oil Chemists Society, fiftieth anniversary meeting, Roosevelt hotel, New Orleans, La., April 20-22.

American Paper & Pulp Association, annual convention, Waldorf-Astoria hotel, New York, February 22-26.

American Pharmaceutical Association, annual meeting, Netherlands-Hilton hotel, Cincinnati, Ohio, August 16-23.

American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 21-26.

Animal Health Institute, annual meeting, Shoreham hotel, Washington, D. C., April 12-14.

Association of Consulting Chemists & Chemical Engineers, luncheon meeting and panel discussion, Shelburne hotel, New York, March 10; symposium and banquet, Shelburne hotel, New York, April 28.

Chemical Market Research Association, textile chemicals meeting, Dinkler Plaza hotel, Atlanta, Ga., February 18-19.

Chemical Progress Week, April 13-17.

Chemical Specialties Manufacturers Association, semi-annual meeting, Drake hotel, Chicago, May 18-20.

Chemurgic Council, annual conference, Congress hotel, Chicago, April 1-3.

Commercial Chemical Development Association, annual meeting, Statler-Hilton hotel, New York, March 4-5.

Drug, Chemical & Allied Trades section of the New York Board of Trade, annual dinner, Waldorf-Astoria hotel, New York, March 5.

Electrochemical Society, Sheraton hotel, Philadelphia, May 3-7.

Federal Wholesale Druggists' Association, midyear meeting, Statler-Hilton hotel, New York, March 5-6.

Federation of Paint & Varnish Production Clubs, annual convention, Convention Hall, Atlantic City, N. J., October 22-24.

Flavoring Extract Manufacturers Association, annual meeting, Traymore hotel, Atlantic City, N. J., May 17-20.

Manufacturing Chemists' Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 11-13.

National Paint, Varnish & Lacquer Association, annual convention, Chalfonte-Haddon Hall, Atlantic City, N. J., October 19-21.

National Petroleum Association, semi-annual meeting, Cleveland hotel, Cleveland, Ohio, April 15-17.

Oil Trades Association of New York, Waldorf-Astoria hotel, New York, March 25.

Packaging Conference, sponsored by American Management Association, Palmer House, Chicago, April 13-15.

Packaging and Transportation Symposium, sponsored by Manufacturing Chemists' Association, Engineering & Scientific Center, Cleveland, Ohio, April 29-30.

Paint Industries' Show, sponsored by Federation of Paint and Varnish Production Clubs, Convention Hall, Atlantic City, N. J., October 20-24.

Parenteral Drug Association, Edgewater Beach hotel, Chicago, April 17.

Petroleum World Congress, Coliseum, New York, May 31-June 6.

Pharmaceutical Manufacturers Association, annual meeting, Boca Raton Club, Boca Raton, Fla., April 1-3.

Pharmaceutical Manufacturers Association, western regional meeting, Ambassador hotel, Los Angeles, February 16-17.

Pittsburgh Conference on Analytical Chemistry & Applied Spectroscopy, Penn-Sheraton hotel, Pittsburgh, Pa., March 2-6.

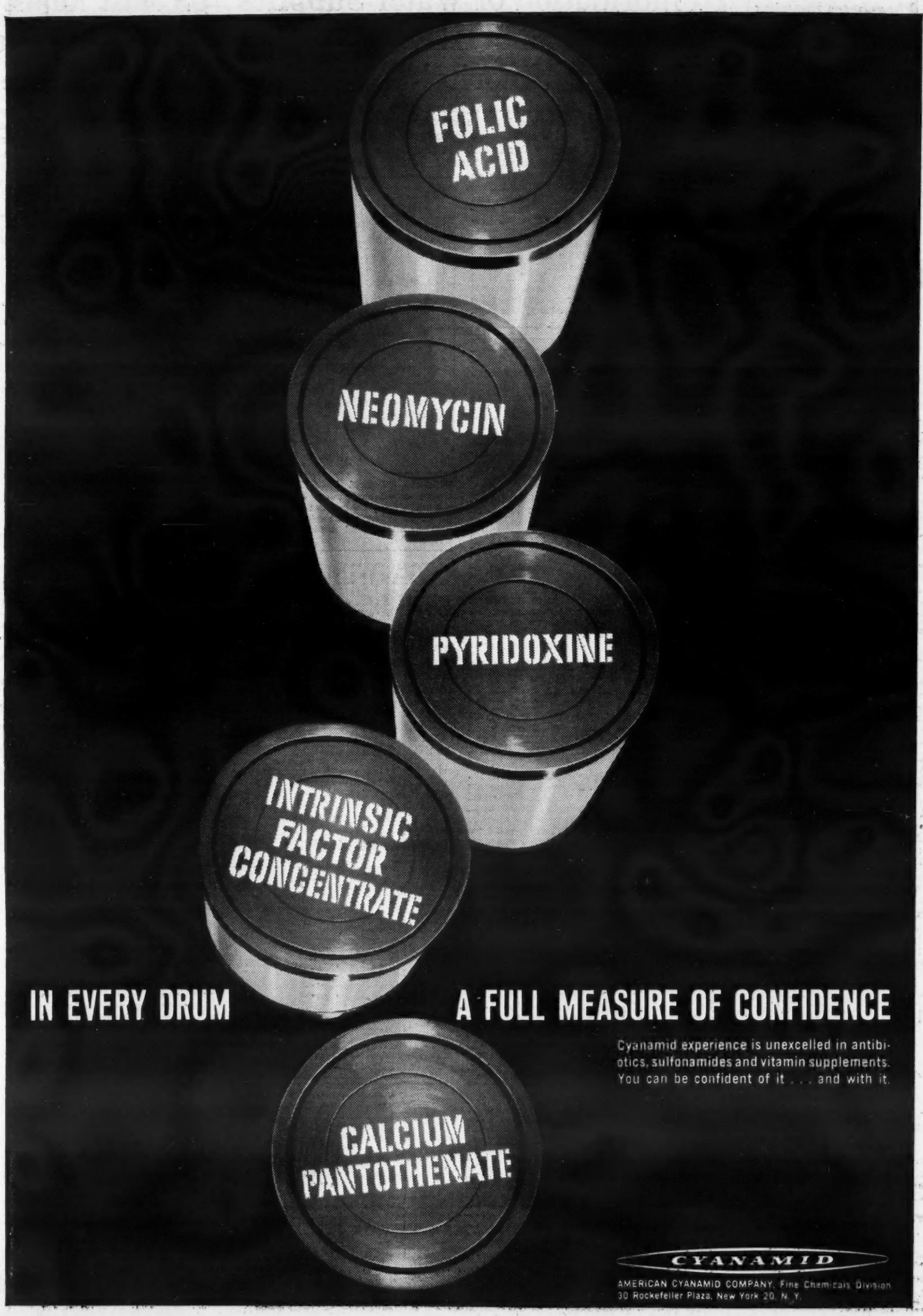
Proprietary Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., May 10-13.

Society of Plastics Industry, Pacific Coast section conference, Del Coronado hotel, Coronado, Calif., March 26-27; Canadian conference, Windsor hotel, Montreal, Canada, April 6-7.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, March 11.

Technical Association of the Pulp & Paper Industry, annual convention, Commodore hotel, New York, February 22-26.

Toilet Goods Association, annual meeting, Waldorf-Astoria hotel, New York, May 12-14; scientific section's spring meeting, Waldorf-Astoria hotel, New York, May 14.



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CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, February 13 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. ..... lb. 3.00 - 3.75
Acacia (see Arabic gum).
Acenaphthene, below 92.5 C. m.p., dms., works lb. .40 - —
Above 92.5 C. m.p., bbls., dms., lb. .41 - .50
Acetaldehyde, 99%, dms., c.l., works. lb. .12 - —
dms., l.c.l., works ..... lb. .13½- —
tanks, works ..... lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt, alld lb. .32½- —
bbls., bgs., ton lots, frt. alld. lb. .33½- —
bbls., bgs., smaller lots, frt. alld lb. .36½- —
USP, bbls., 225-lb. dms. any quantity lb. .79 - —
100-lb. dms., any quantity lb. .81 - —
Acetic acid, coml. or redist., 28%, bbls ..... 100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs. 6.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs. 10.45 - —
Acetic acid, glacial, syn., CP, dms., dlvd ..... 100 lbs. 22.00 -23.00
tech., dms., c.l., dlvd. ..... 100 lbs. 13.75 - —
dms., l.c.l., dlvd. ..... 100 lbs. 14.25 - —
tanks, dlvd. ..... 100 lbs. 10.00 - —
USP, cbys., dlvd ..... 100 lbs. 31.00 -32.00
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret. dms., l.c.l., dlvd. E. lb. .18 - —
tanks, dlvd. E. ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib. dms., l.c.l., dlvd. ..... lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., l.c.l., dlvd. ..... lb. 1.36 - —
Acetoacet-o-toluidide fib. dms., c.l., dlvd lb. .82 - —
fib. dms., l.c.l., dlvd. ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd. .. lb. .11 - —
dms., l.c.l., dlvd ..... lb. .12½- —
tanks, dlvd. ..... lb. .08½- —
Acetonitrile, dms., c.l., works .... lb. .45 - —
dms., l.c.l., works ..... lb. .45¾- —
tanks, works ..... lb. .43 - —
Acetophenetidin, USP, dms., works, frt. equald lb. 1.22 - 1.34
Acetophenone, cns., dms. ..... lb. .42 - 1.30
tech., dms., c.l., works ..... lb. .37 - —
dms., l.c.l., works ..... lb. .37½- —
tanks, works ..... lb. .35 - —
N-Acetyl-p-aminophenol, 1,000-lb. lots, frt. adjusted lb. 1.45 - —
smaller lots, dms., same basis lb. 1.55 - 1.63
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .19 - —
cs., l.c.l., ex whse. ..... lb. .24½- .30
Acetylsalicylic acid, USP, special, makers, primary distrib., bbls., 1,000-lb. lots, point of shipt lb. .63½- —
USP, standard, fine, cryst. gran., (20-40 mesh) powd., (60 mesh), bbls., 1,000-lb. lots, same basis lb. .58½- —
Freight equald, shipt. identical quantity over standard routes, from N. Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver. lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

Acids

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .51 - —
dms., l.c.l., works ..... lb. .51¾- —
tanks, works ..... lb. .44 - —
Acrylic acid, glacial, dms., l.t.l., dlvd. lb. .53 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .30 - —
dms., l.c.l., l.t.l., frt. equald ... lb. .31 - —
tanks, frt. equald ..... lb. .27 - —
Adeps lanae (see lanolin).

Abies Siberica Oil—Ammonium Bicarbonate

Adipic acid, bgs., c.l., dlvd. ..... lb. .32¼- —
bgs., l.c.l., dlvd. ..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 1.80 - 1.90
powd., 30 mesh., fib., dms. lb. 2.50 - —
dl-Alanine, dms., works ..... lb. 8.50 -11.00
Aldol, 95%, dms., l.c.l. ..... lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l., dlvd lb. .93 - —
fib. dms., l.c.l., dlvd ..... lb. .98 - —
Aletris root, bgs. ..... lb. 1.75 - 1.85
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies. lb. 2.38 - —

Alcohols

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Alkali blue, toner, litho flushed, 125-lb. bbls., same basis. lb. 1.35 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 80%, dms., frt. alld. lb. 28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld. lb. 6.50 - 6.55
2½% dms. frt. alld. ..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l., dlvd. .... lb. .32½- —
dms., l.c.l., dlvd ..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.53 - —
55-lb. cbys., 55 to 990 lbs. works. lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd. .. lb. .17¼- —
dms., l.c.l., dlvd ..... lb. .19 - —
tanks, dlvd. ..... lb. .15 - —
Allyl isocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde).
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.45
NF, bots. ..... lb. 3.00 - 3.50
sweet, USP, cns., dms. ..... lb. .85 - 1.30
Aloe, Cape, cs. ..... lb. .35 - .45
powd., cs. ..... lb. .60 - .65
Curacao, kgs. ..... lb. .60 - .70
powd., kgs. ..... lb. .80 - —
Aloin, USP, bbls., dms., kgs. .... lb 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene)
Alphapicoline (see a-Picoline).
Alphaterpineol (see a-Terpineol).
Alphatocopherol (see a-Tocopherol).
Alum, ammonium, gran., bgs., works 100 lbs. 4.30 - —
lump, dms., works ..... 100 lbs. 5.05 - —
powd., dms., works ..... 100 lbs. 5.20 - —
USP, burnt, dms. ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum, potassium, gran., bgs., works. 100 lbs. 4.55 - —
lump, dms., works ..... 100 lbs. 5.30 - —
powd., dms., works ..... 100 lbs. 5.45 - —
USP, burnt., dms. ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum, potash-chrome, dms. ..... lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .05 - —
bgs., l.c.l., works ..... lb. .05¼- .06
Aluminum acetate, basic soln., 24%, bbls., l.c.l., works lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l. works 100 lbs. 21.00 - —
dms., l.c.l., works ..... 100 lbs. 21.50 - —
soln., 32°, cybs., c.l., works .. lb. .0495- —
cbys., l.c.l., works ..... lb. .0570- .1095
tanks, works ..... 100 lbs. 3.95 - —
NF, gran., dms., works ..... lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .17¼- —
bgs., l.c.l., works ..... lb. .18¼- .20¼
Aluminum fluoride in fib. dms. 0.35c. per lb. higher
Aluminum formate, basic soln., containers extra c.l., works. 100 lbs. 11.00 - —
containers extra, l.c.l., works. 100 lbs. 11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .03½- —
bgs., 20,000-40,000 lb. lots, same basis lb. .03¾- —
bgs., 2,000-20,000 lb. lots, same basis lb. .04¾- —
bulk, c.l., same basis ..... lb. .03¼- —
Aluminum hydroxide, dried., USP XV, fib. dms., works lb. .82½- —
fib. dms., contract, works lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib. dms., works lb. .22 - —
9-9½% Al_2O_3, fib. dms., works lb. .19 - —
fib. dms., contract, works. lb. .18 - —
Aluminum hydroxide, tech., powd. (See Aluminum hydrate).
Aluminum metal, 99%+, ingots, 10,000-lb. lots, frt. alld lb. .2680- —
pigs, 10,000-lb. lots, frt. alld lb. .2470- —
Aluminum oxide, amorphous (See Alumina, calcined).
Aluminum paste, lining, extra-fine, dms lb. .69½- —
Standard grade, dms. ..... lb. .47 - —
Aluminum powder, lining, extra-fine, dms lb. 1.11 - —
Standard grade, dms. ..... lb. .81 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs., 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 25,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or over.
Aluminum resinate, precip., 2.1% t.t.l., dms lb. .36¼- —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton. 41.00 - —
grd., bulk, c.l., same basis ton. 40.00 - —
lump, bgs., c.l., same basis ton. 44.00 - —
Coml., iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 6.30
USP, gran., dms., works ..... lb. .30 - —
powd., dms., works ..... lb. .37 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
p-Aminoacetanilide, frt. alld. .... lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.50 - 1.75
Aminoazotoluene base, bbls., 100% basis lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 - —
Aminoethyl ethanolamine, dms., c.l., dlvd. lb. .475 - —
dms., l.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld. lb. .44 - —
dms., l.c.l., frt. alld. ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lb. 2.50 - —
p-Aminophenol, dms., frt. alld. .. lb. 1.15 - —
Aminophylline, USP, 100-lb. dms lb. 3.55 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted. lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. E. of Rockies. ton. 88.00 - —
refrigeration, tanks, works, frt. equald E. of Rockies. ton. 89.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton. 91.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal, gray, bgs., cl., works, frt, equald ..... 100 lbs. 8.25 - —
bgs., l.c.l., same basis .. 100 lbs. 6.05 -13.65
Ammoniac, sal., white (see Ammonium chloride, tech.).
Ammonium acetate, purif., dms. lb. .40 - —
Ammonium benzoate, USP, fib. dms. ton lots, works lb. 1.00 - —
fib dms. 1,000-lb lots, works. lb. 1.05 - —
Ammonium biborate, gran., dms., c.l., works. ton. 325.00 - —
dms., ton lots, ex whse. 100 lbs. 20.40 - —
dms., smaller lots, ex whse. 100 lbs. 21.15 - —
Ammonium bicarbonate, dom., dms., c.l., works. 100 lbs. 7.00 - —
dms., l.c.l., works ..... 100 lbs. 8.00 - —

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
a.p.a.	available phosphoric acid	e.p.	end point	Pac.	Pacific
approx.	approximately	equald.	equalized	pf.	proof
artif.	artificial	exp.	expressed	phos.	phosphate
ASTM	American Society for Testing Materials	Ext.	external	photo.	photographic
		F.	fahrenheit	pkgs.	packages
Atl.	Atlantic	ferment.	fermentation	powd.	powdered
Be.	Baume	f.f.a.	free fatty acid	precip.	precipitated
bbls.	barrels	f.f.c.	free from chlorine	prod.	producer
bgs.	bags	fib.	fiber	pt.	point
bls.	bales	f.o.b.	free on board	pulv.	pulverized
bots.	bottles	f.p.a.	free of prussic acid	purif.	purified
b.p.	boiling point	frt.	freight	redist.	redistilled
b.p.l.	bone phosphate of lime	gal.	gallon	refd.	refined
b.r.	boiling range	gran.	granular	refy.	refinery
bxs.	boxes	grd.	ground	reg.	regular
C.	centigrade	i.&a.	iron and aluminum	resub.	resublimed
cbys.	carboys			ret.	returnable
CD	completely denatured	i.b.p.	initial boiling point	SD	specially denatured
c.i.f.	cost, insurance, freight	imp.	imported	s.d.	single distilled
cks.	casks	incl.	included	S. E.	southeast
c.l.	carlots	indust.	industrial	sec.	secondary
cns.	cans	kgs.	kegs	secs.	seconds
coml.	commercial	l-	laevo	s.g.	specific gravity
conc.	concentrated	lacq.	lacquer	shipt.	shipment
CP	chemically pure	lb.	pound	soln.	solution
cps.	centipoises	l.c.l.	less than carlots	s.u.	standard unit
cryst.	crystalline	l.t.l.	less truckload	syn.	synthetic
cs.	cases	liq.	liquid	tanks.	railroad tankcars
ctns.	cartons	mfrs.	manufacturers	tech.	technical
cyls.	cylinders	m-	meta	tert-	tertiary
d-	dextro	m.a.p.	mixed aniline point	t.l.	truck loads
dbl.	double	min.	minimum	t.w.	tank wagons
denat.	denatured	m.p.	melting point	USP	U. S. Pharmacopoeia
dest-dist.	destructively—distilled	N-	nitrogen		
di-	dextrolaevo	n-	normal	vis.	viscosity
dist.	distilled	nat.	natural	VM&P	varnish makers & painters
		neut.	neutral		
		NF	National Formulary	W.	west
		NNR	New and Nonofficial Remedies	whse.	warehouse
				w. w.	water-white

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Ammonium bichromate, dms., works. lb. .42 - .43
Ammonium bifluoride, dms., dlvd lb. .2145- .2245
Ammonium bromide, NF, gran., bbls. lb. .43 - —
Ammonium carbonate, USP, lump, dms., c.l. lb. .15½- —
Ammonium chloride, tech., fine gran., bgs., c.l., works 100 lbs. 5.75 - —
bgs., l.c.l., works .... 100 lbs 7.75 - 8.20
USP, gran., fib. dms. ..... lb. .17¼- —
Ammonium citrate, dibasic, bbls. lb. 77 - —
Ammonium dichromate (see Ammonium bichromate).
Ammonium fluoride (see Ammonium bifluoride).
Ammonium gluconate, tech., dms.lb. .45 - —
Ammonium hydroxide (see Ammonia aqueous).
Ammonium iodide, NF, bots., dms., lb. 4.26 - 4.38
Ammonium lauryl sulfate, dms., c.l., frt. alld. lb. .19 - —
dms., l.c.l., frt. alld. ..... lb. .20 - —
tanks, frt. alld. ..... lb. .18 - —
Ammonium linoleate, 80%, dms., works lb. .50 - .55
Ammonium lignin sulfonate bgs., c.l., works .100 lbs. 3.25 - —
bgs., l.c.l., works ..... 100 lbs. 3.40 - 3.65

Ammonium molybdate, CP, cryst., fib. dms., 15,000 lbs., works.lb. 1.22 - —
fib. dms., 2,000-lb. contracts, works lb. 1.23 - —
single fib. dms., works .. lb. 1.24 - —
Ammonium nitrate, dom., fertilizer grade, 33.5% N bags., f.o.b., works ton.68.00 - —
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton, base price. ton.68.00 - —
with dolomite, 20.5% N, bgs., c.l., Hopewell, Va ton.45.50 - —
Ammonium oxalate, tech., fine gran., powd., dms. lb. .28½- .34½
Ammonium pentaborate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse. 100 lbs.14.23 - —
bgs., smaller lots, ex whse. 100 lbs.15.48 -17.48
Ammonium pentaborate powder $10 per ton higher in bags.
Ammonium persulfate, tech., dms., 10-ton lots or more, works. lb. .18 - —
dms., smaller lots, works .. lb. .20 - .23
Ammonium phosphate, coml., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis ..... lb. .10 - —
Ammonium phosphate, dibasic, NF V, bbls., dms lb. .46 - —

Ammonium phosphate, tech., bgs., c.l., works, frt. equald. lb. .09¼- —
bgs., l.c.l., same basis ..... lb. .10 - —
Ammonium silicofluoride, dms., works lb. .11¼- .13¼
Ammonium sulfamate bgs., c.l., t.l., works lb. .19 - —
bgs., l.c.l., works ..... lb. .20½- .27
Ammonium sulfate, standard granular, bulk, f.o.b. works, base price ton.32.00 - —
purif., bgs., f.o.b. works .. lb .08½- .15
large granular, bulk, c.l., works ton.35.00 - —
bgs., c.l., works ton 40.00 - —
Tech., bulk c.l., t.l., works ton.52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs., l.c.l., t.l., works—100 lbs 3.20 - 7.20
Ammonium sulfide, liq., 40-44%, tanks, frt., equald..100% basis ton.160.00 - —
Ammonium sulfocyanide, tech (see Ammonium thiocyanate).
Ammonium thiocyanate, tech., cryst., dms. c.l works lb. .20 - —
dms., l.c.l., works lb. .22 - .26
tech., soln. 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycollate, coml., cbys., 100% basis lb. 1.35 - 1.65
Highly purif., cbys 100% basis. lb. 1.70 - 1.96
d-Amphetamine hydrochloride, dibasic, bots lb.17.50 -23.00
dl-Amphetamine hydrochloride, dibasic, bots lb. 4.50 - 6.00
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -21.00

d-Amphetamine phosphate, fib. dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms. lb. 4.20 - 9.00
d-Amphetamine sulfate, fib. dms., lb.15.00 -17.00
dl-Amphetamine sulfate, fib. dms., lb. 4.20 - 5.00
Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies lb. .18½- .19
dms., l.c.l., same basis.... lb. .20 - .20½
tanks, same basis .. lb. .16 - .16½
Amyl acetate, ex pentane, reg. dms., c.l., dlvd lb. .19 - —
dms., l.c.l., dlvd ..... lb. .21½- —
tanks, dlvd. ..... lb. .16½- —
Tech., dms., c.l., dlvd. ..... lb. .17 - —
dms., l.c.l., dlvd ..... lb. .18½- —
tanks, dlvd ..... lb. .14½- —
Syn., oxo process, dms., c.l., dlvd. lb. .19 - —
dms., l.c.l., dlvd ..... lb. .20½- —
tanks, dlvd ..... lb. .16½- —
Amyl alcohol, ex fusel oil (see Fusel oil refd.).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
Amyl alcohol, ex pentane, mixed amyls dms., c.l., frt. alld. lb. .19 - —
dms., l.c.l., frt. alld .. lb. .20½- —
tanks, frt. alld ..... lb. .16½- —
primary, dms. c.l., frt. alld lb. .19¾ .20¼
dms., l.c.l., frt. alld .... lb. .21¼- .21¾
tanks, frt. alld ..... lb. .17¼- .17¾
secondary, synthetic, dms., c.l., works, frt. alld lb. .19 —
dms., l.c.l., works ..... lb. .20½- —
tanks, works. ..... lb. .17 - —
tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., l.c.l., frt. alld. E .. lb. .18½- —
tanks, frt. alld. E .... lb. .14½- —
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works ..... lb. .43 - —
tanks, works ..... lb. .39½- —
Amyl alcohol, 2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works ..... lb. .70 - —
tanks, works ..... lb. .60 - —
Amyl n-butyrate, dms..... lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb. 1.75 - 2.20
p-tert Amyl phenol, dms., c.l., works. lb. .26¾- —
dms., l.c.l., works ..... lb. .27¾- —
Amyl salicylate, cns., dms. .... lb. .80 - 1.10
Amyris oil, dms ..... lb. 1.35 - 1.75
Anethole, USP, cns., dms..... lb. 1.25 - 1.70
Tech., dms. ..... lb. .85 - .90
Angelica root, dom., bls. ..... lb. .65 - .75
Angelica root oil, bots ..... lb.120.00 -140.00
Angelica seed oil, bots..... lb.120.00 -130.00
Aniline, dms., c.l., frt. alld..... lb. .20 - —
dms., l.c.l., frt. alld. ..... lb. .21 - —
tanks, frt. alld. ..... lb. .18 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., truckloads, 20,000 lbs. min., frt. alld. lb. .33 - —
dms., l.c.l., same basis..... lb. .35 - —
Anise oil, USP, dms. ..... lb. 2.00 - 4.05
Anise seed, Mexican, bgs..... lb. .20 - —
Spanish, bgs. ..... lb. .20 - —
Anisic aldehyde, dms. ..... lb. 1.85 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis..... lb. .82 - —
tanks, same basis ..... lb. .78 - —
p-Anisidine, dms., works..... lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l., f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .43 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5%, bbls., c.l., frt. alld lb. .83 - —
bbls., l.c.l., same basis lb. .86 - —
Electrical grade, bbls., l.c.l., same basis lb. 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .29 - —
cs., c.l., mines ..... lb. .29½- —
Antimony oxide, bgs., c.l., frt. alld. lb. .24½- —
bgs., l.c.l., frt. alld. ..... lb. .26 - —
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd .. lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works ..... lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb. dms lb. .69½- —
USP, powd., 250-lb. dms..... lb. .74½- —
Antipyrine, NF, 200-lb. bbls .... lb. 3.50 - —
Apomorphine hydrochloride, USP, 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms. .. lb. .85 - 1.25
Arabic gum, amber sorts, bgs. lb. .21 - .23
USP, powd., bbls. ..... lb. .26 - .29
Areca nuts, powd., bbls..... lb. .13 - —
Arecoline hydrobromide, NF, bots., tins oz. 3.75 - —
l-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.60.00 - —
l-Argenine monochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. 1.40 - 1.50
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works ..... lb. .031 - —
Arsenic trioxide, USP, dms .... lb. .48 - —
Arsenic white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works ..... lb. .06½- .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons deep shades, bbls. lb. 3.70 - —
Light shades, bbls. ..... lb. 2.85 - —
Maroon shade, bbls. ..... lb. 3.70 - —
Asafetida gum, cns. ..... lb. .40 - —
Powd. bbls., dms. ..... lb. .85 - —
Asbestine (see Talc fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons) mines ton.86.00 - —
7D, c.l. (30 tons) mines ton.75.00 - —
7F, c.l. (30 tons) mines ton.71.00 - —
7H, c.l. (30 tons) mines ton.61.00 - —
7K, c.l. (30 tons) mines ton.50.00 - —
7M, c.l. (30 tons) mines ton.44.00 - —
7R, c.l. (30 tons) mines ton.43.00 - —
7RF, c.l. (30 tons) mines ton.44.00 - —
7T, c.l. (30 tons) mines ton.41.00 - —
7TF, c.l. (30 tons) mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.
Ascorbic acid, USP dms., 25-100 kilo lots kilo.10.00 - —
dms., 10-kilo lots..... kilo.10.35 - —
dms., 5-kilo lots..... kilo.10.75 - —
bots., 1-kilo lots ..... kilo.12.00 - —
bots., 500-gram bots ..... kilo.12.50 - —
Ash black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.40.00 - —
ex-whse, N. Y., N. J ton.86.50 - —
seconds, 300°-390°F. fusing pt., bgs., c.l., mines ton.35.00 - —
select, 350°F. fusing pt., bgs., c.l., mines ton.41.00 - —
270°-295°F. fusing pt., bgs., c.l., mines ton.40.00 - —
Manjak No. 10 crude, dms., works. lb. .07 - —

When you need ethyl alcohol...in any quantity, any grade...check with Eastman first, a primary producer. Eastman's manufacturing and distribution facilities teamed with its network of distributors are geared to meet your drum or bulk receiving schedule quickly, efficiently. Choose from a wide range of grades: anhydrous, 95%, specially denatured formulas and four proprietary (Tecsol®) solvents.
Tecsol is available in principal industrial centers for immediate shipment in drum or bulk through Eastman Chemical Products, Inc.,[1] or its distributors.[2] Write or phone the office nearest you for specifications and shipping data.

[1] Longview, Texas
Lodi, New Jersey
Kingsport, Tenn.

[2] Technical Petroleum Company, Chicago
Atlanta Solvents & Chemical Company, Atlanta
Texas Solvents & Chemicals Co., Houston, Dallas
Florida Solvents & Chemicals Company, Tampa
Wilson Meyer Company, San Francisco

Eastman CHEMICAL PRODUCTS, INC.
KINGSPORT, TENNESSEE, subsidiary of Eastman Kodak Company

SALES OFFICES: Eastman Chemical Products, Inc. Kingsport, Tennessee; Atlanta; Chicago; Cincinnati; Cleveland; Dallas; Framingham, Mass.; Greensboro, N. C.; Houston; New York City; St. Louis. West Coast: Wilson Meyer Co., San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Asphalt, petroleum, cut-back, tanks, tankwagon, refy gal. .09 - —
emulsion, tanks tankwagon, refy, gal. .09½ - —
Asphalt, petroleum, steam-refd., 50-80 penetration, tanks, tankwagon, refy ton.21.00 - —
85-300 penetration tanks, tankwagon, refy ton.20.00 - —
Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins oz. 5.75 - 6.50
Atropine sulfate, USP, bots. oz. 5.00 - 5.50
Avocado oil, f.o.b. Calif., cns. lb. 2.25 - —

B

Bacitracin, bulk, 1,000,000 or more units 50,000 units, less than 1,000,000 units, 50,000 units. .65 - — .70 - —
Balm of Gilead buds, dried, bgs lb. 1.25 - 1.35
Barberry root bark, bgs lb. .28 - .30
Barbital, NF, 100-lb. dms. lb. 4.50 - —
Barbital sodium, NF, dms. lb. 4.75 - —
Barium carbonate precip, bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride, anhyd, bgs., c.l., works ton.176.00 - —
bgs., l.c.l., works ton.196.00 - —
Barium chloride, NF, cryst., 100 lb. dms lb. .22 - —
Tech., cryst., bgs., c.l., works, 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - —
Barium chromate, bgs. frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.206.00 - —
bgs. l.c.l., l.t.l., frt. equald ton.218.00 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd. lb. .16 - —
bbls., l.c.l., l.t.l., dlvd. lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt. equald ton.275.00 - —
dms., l.c.l., l.t.l., frt. equald. ton.285.00 - —
Barium peroxide, dms., frt. equald. lb. .20 - —
Barium stearate, ctns., c.l., frt. alld. lb. .41 - —
ctns., l.c.l., same basis lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, dms. lb. .15 - .15½
Barium sulfide, dms., c.l., works. ton.100.00 - —
dms., l.c.l., works ton.110.00 - —
Barytes, southern, off-color, bgs., mines ton.25.00 - —
95-75%, bgs., mines ton.25.00 - —
white, water-grd., paper bgs., c.l., St. Louis ton.55.00 - 55.25
paper bgs., ex whse., New York ton.79.85 - —
Battery acid, cbys. c.l. works, E. 100 lbs. 2.35 - —
cbys., l.c.l., works, E 100 lbs. 2.65 - 10.95
Bauxite, bulk, mines ton. 7.00 - 10.00
Bay oil, NF, Puerto Rican, 50-55% cns lb. 2.10 - 3.05
55-60%, cns. lb. 2.50 - 3.05
West Indian, 50-55% cns, dms., lb. 2.30 - 3.00
Bayberry wax, bgs. lb. .45 - .47
Beeswax, crude, African, bgs. lb. .53 - .54
Brazilian, bgs lb. .55 - .56
Central American, bgs. lb. .53 - .54
Chilean, bgs. lb. .56 - .57
bricks, 100-lb. ctns. lb. .67 - .68
white, slabs, 100-lb. ctns lb. .66 - .67
yellow, bricks, 100-lb. ctns. lb. .58 - .59
yellow, slabs, lb. lb. .57 - .59
Belladonna leaf, bls. lb. .26 - —
Belladonna root, bls. lb. .28 - —
Bentonite, dom. 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.91.00 - —
bgs., 1-ton lots, ex whse ton.94.00 - —
low gel., bgs., 5-ton lots ex whse ton.89.35 - —
bgs., 1-ton lots, ex whse ton.92.35 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. lb. .80 - .86
Tech., cbys., dms., t.l. lb. .43 - —
cbys., smaller lots lb. .44 - —
Benzene, coaltar, pure or nitration, tanks, works:
Bethlehem, Pa. gal. .31 - —
Birmingham district gal. .31 - —
Chicago district gal. .31 - —
Cleveland district gal. .31 - —
Geneva, Utah gal. .31 - —
Johnstown, Pa. gal. .31 - —
Lackawanna, N. Y. gal. .31 - —
Lone Star, Tex. gal. .31 - —
Lorain, Ohio gal. .31 - —
Middletown, Ohio gal. .31 - —
Minnequa, Colo. gal. .31 - —
Philadelphia district gal. .31 - —
Pittsburgh district gal. .31 - —
Sparrows Point, Md. gal. .31 - —
Syracuse, N. Y. gal. .31 - —
Terre Haute, Ind. gal. .31 - —
Youngstown, Ohio gal. .31 - —
Benzene, petroleum, nitration or industrial, Houston, Tex., tanks, gal. .31 - —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech. high gamma, dms., c.l., dlvd., gamma unit-lb. .00825 - —
dms., l.c.l., works gamma unit-lb. .009 - .0095
low gamma, dms., c.l. dlvd. gamma unit-lb. .00825 - —
dms., l.c.l., works gamma unit-lb. .009 - —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls. dlvd. lb. 2.30 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms. lb. 3.48 - 3.50
Benzoic acid, tech., bbls., dms., c.l., t.l., frt., alld. lb. .37 - —
bbls., dms., ton lots, same basis lb. .41 - —
bbls., dms., 1,000-lb. lots, same basis lb. .43 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb. lots lb. .50 - —
Benzoin gum, Sumatra, cs. lb. .33 - —

Benzol

Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzophenone, dms. lb. 1.40 - 1.70
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt., equald lb. .21 - —
cbys, smaller lots, frt., equald lb. .23 - —

Benzoyl chloride, cbys., dms., c.l., works, frt., equald lb. .22 - —
cbys., l.c.l., same basis lb. .23 - —
tanktrucks, dlvd. Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb. lots, works lb. .98 - 1.08
Benzyl acetate, f.f.c., cns., dms lb. .58 - .79
Benzyl alcohol, NF, dms. lb. .58 - .80
Tech., dms., dlvd. lb. 47½ - .65
Benzyl benzoate, USP, NF, 40-lb. dms lb. .68 - —
Benzyl chloride, tech., cbys., dms., c.l., works, frt., equald lb. .22½ - .25½
cbys., dms., l.c.l., same basis lb. 23½ - 25½
tanktrucks, dlvd., Metropolitan area lb. .21 - —

A 2½c. differential is quoted on benzyl chloride in 5-gal cbys. In steel dms. prices are ½c. lower.

Benzyl cinnamate, cns. lb. 3.30 - 3.60
Benzyl dimethylamine, dms., works. lb. 2.25 - —
Benzyl formate, cns. lb. 1.85 - 8.10
Benzyl isoeugenol, cns. lb. 9.85 - —
Benzyl propionate, bots. lb. 1.35 - 1.65
Benzyl salicylate, bots. lb. 1.60 - 1.85
Benzylidine acetone, bots. lb. 1.75 - 1.80
Benzylidine chloride. (see Benzal chloride).
Berberine bisulfate, cns. lb. 35.00 - 36.25
Berberine hydrochloride, bots. lb. 35.00 - 36.25
Bergamot oil, nat., NF, Italian, cns. lb. 13.00 - 14.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid)
Betamethylnaphthalene (see b-Methylnaphthalene)
Betanaphthol (see b-Naphthol)
Betanaphthylamine (see b-Naphthylamine)
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots. gram 10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns. lb. 1.50 - 1.90
Rectified, cns. lb. 1.75 - 2.00
Bismuth chloride, jars lb. 5.11 - —
Bismuth hydroxide, dms. lb. 4.60 - 4.65
Bismuth metal, bxs., ton lots lb. 2.25 - —
Bismuth nitrate, cryst. dms. lb. 2.06 - 2.17
Bismuth oxide, anhyd., dms. lb. 4.47 - 5.03
Bismuth oxychloride, dms. lb. 4.37 - 4.42
Bismuth subcarbonate, USP, dms. lb. 3.20 - —
Bismuth subgallate NF fib. dms lb. 3.15 - —
Bismuth subiodide, NF, fib. dms lb. 5.37 - —
Bismuth subnitrate, NF dms. lb. 2.65 - —
Bismuth subsalicylate, USP, dms lb. 3.50 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .29½ - —
Bisphenol-A, bgs., c.l., t.l., less than 70,000-lbs., same basis lb. .30 - —
bgs., l.c.l., same basis lb. .31 - —

Blackberry root bark, bls. lb. .50 - .53
Black haw root bark, bls. lb. .63 - .65
Black haw tree bark, bls. lb. .45 - .50

Black Pigments

Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs. c.l., works ton.145.00 - —
bgs., l.c.l., works ton.155.00 - —
bgs., l.c.l., New York whse ton.195.00 - —
Blood, dried, 16-16½% ammonia, New York, unit-ton. 7.25 - —
high-grade, unground, 16-17% ammonia, bgs., Chicago, unit-ton. 7.75 - —
Blood, dried, soluble, bgs., c.l. lb. .12 - .13
bgs., t.l. lb. .14 - .17
bgs., l.t.l. lb. .15 - .30
Bloodroot, bls lb. .48 - .50

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Blue Dyes—Cajuput Oil

Blue Pigments

Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de ruse oil, Brazilian, dms lb. 1.90 - 2.55
Peruvian, dms. lb. 1.80 - 2.25
BON acid maroons, pure, bbls lb. 1.75 - —
Resinated, bbls. lb. 1.50 - —
Bone black, dms., l.c.l. frt. alld lb. .18 - .22¾
Pacific coast bone black prices 2c. per lb. higher.
Bonemeal, steamed, works, E ton.67.50 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate, precip. (see Calcium phosphate, tribasic)
Borax, tech., anhyd., 99½%, bgs., c.l., works ton.87.50 - —
bgs., ton lots, ex whse. New York or Chicago 100 lbs. 7.19 - —
Borax, tech., anhyd., 99½%, bgs., smaller lots, same basis. 100 lbs. 8.44 -10.44
bulk, c.l., works ton.78.50 - —
gran., decahydrate. 99½%, bgs., c.l., works ton.47.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 5.19 - —
bgs., smaller lots, same basis. 100 lbs. 6.44 - 8.44
bulk, c.l., works ton.41.00 - —
gran., pentahydrate, 99½%, bgs., c.l., works ton.63.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 5.97 - —
gran., pentahydrate, 99½%, bgs., smaller lots, same basis. 100 lbs. 7.22 - 9.22
bulk, c.l., works ton.56.50 - —
powd., 99½%, bgs., c.l., works. ton.52.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.34 - —
bgs., smaller lots, same basis. 100 lbs. 7.59 - 9.59
USP borax $15 per ton higher in bags.
Bordeaux powder, tribasic, bgs., c.l., dlvd lb. .24 - —
bgs., l.c.l., same basis lb. .26 - —
Boric acid, tech., anhyd., 99.9%, bgs., c.l., works ton.335.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs.19.50 - —
bgs., smaller lots, same basis. 100 lbs.21.75 -23.75
cryst., 99.9%, bgs., c.l., works. ton.160.00 - —
Boric Acid, tech., cryst., 99.9%, bgs., ton lots, ex whse, New York or Chicago 100 lbs.10.87 - —
bgs., smaller lots, same basis. 100 lbs.12.12 -14.12
dms., c.l., works ton.185.00 - —
dms., ton lots, ex whse, New York or Chicago. 100 lbs.12.12 - —
dms., smaller lots, same basis 100 lbs.12.87 - —
gran., 99.9%, bgs., c.l., works. ton.108.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 8.29 - —
bgs., smaller lots, same basis ton.170.75 - —
dms., c.l., works ton.133.50 - —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 9.54 - —
gran., dms., smaller lots, same basis 100 lbs.10.29 - —
powd., 99.9%, bgs., c.l., works. bgs., ton lots, ex whse, New York or Chicago 100 lbs. 8.67 - —
bgs., smaller lots, same basis. 100 lbs. 9.92 -11.92
dms., c.l., works ton.141.00 - —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 9.92 - —
dms., smaller lots, same basis 100 lbs.10.67 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls., works lb. 1.70 - —
Boron trifluoride gas, cyls, truckload, works lb. .62 - —
cyls., l.t.l., works lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls. lb. 1.76 - —
Bromine, purif., cs., c.l., t.l., dlvd. E of Rockies lb. .32 - —
c.s., l.c.l., same basis lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E of Rockies lb. .31 - —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis lb. .21½- —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Bromoform, pharmaceutical grade, 100-lb. cbys lb. 1.80 - 1.90
Bromstyrol, bots. lb. 5.45 - 5.70
Brucine, cns. oz. 1.50 - 1.75
Brucine sulfate, NF, cns. oz. 1.50 - 1.75
Buchu leaves, bls. lb 1.20 —

Brown Pigments

Brown pigment quotations are listed individually. For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy lb. .21 - —
cyls., l.c.l. refy lb. .22 - —
tanks, contract, refy. lb. .14½- —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis lb. .18½- —
tanks, same basis lb. .14½- —
Syn., dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., same basis lb. .18½- —
tanks, same basis lb. .14½- —
sec-Butyl acetate, syn., dms., c.l., dlvd.E lb. .14¾- —
dms., l.c.l., same basis lb. .16¼- —
tanks, same basis lb. .12¼- —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E. lb. .57½- —
dms., l.t.l., same basis lb. .58½- —
tanks, same basis lb. .55 - —
Prices of n-butyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Butyl alcohol, ferment, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., frt. alld lb. .18½- —
tanks, frt. alld lb. .14½- —
Syn., dms., c.l., dlvd lb. .17 - —
dms., l.c.l., frt. alld lb. .18½- —
tanks, dlvd lb. .14½- —
Butyl alcohol, sec-synthetic, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd lb. .16½- —
tanks, dlvd lb. .12½- —
Butyl alcohol, tert-synthetic, dms., c.l., frt. alld. dlvd. E lb. .15 - —
dms, l.c.l., same basis lb. .16½- —
tanks, same basis lb. .12½- —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb. .37½- —
dms., l.c.l., works lb. .38¼- —
n-Butyl ether, dms., c.l., works lb. .35¼- —
dms., l.c.l., works lb. .36 - —
tanks, works lb. .33¼- —
Butyl lactate, dms., c.l., frt. alld. E. of Rockies lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Butyl laurate, dms., works lb. .37½- —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 - —
dms., l.c.l., works lb. .55½- —
Butyl oleate, refd., dms., l.c.l., works lb. .32 - —
Butyl phenylacetate, dms. lb. 4.50 - 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, dms., c.l., frt. alld. E. of Mississippi lb. .27¼- —
dms., l.c.l., same basis lb. .28¼- —
Butylamine (see Mono-, Di- and Tributylamine).
6-tert-Butyl-m-cresol (see mono-tert-m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
p-tert-Butylphenel, bgs., c.l., dlvd. lb. .27½- —
bgs., l.c.l., works lb. .28½- —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd. lb. .19½- —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., l.c.l., same basis lb. .34½- —
tanks, same basis lb. .32½- —
Butyric ether (see Ethyl butyrate).

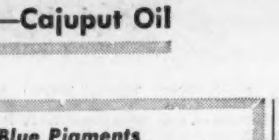
C

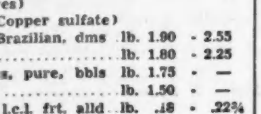
Cacao butter (see Cocoa butter).
Cadmium CP red, dark shade, bbls., frt. alld. E. of Rockies lb. 5.45 - —
Light shade, bbls., same basis lb. 4.55 - —
Medium shade, bbls., same basis. lb. 5.20 - —
Medium light shade, bbls., same basis lb. 4.80 - —
Orange-red shade, bbls., same basis lb. 4.20 - —
Yellow, all shades, bbls., frt. alld. E. of Rockies lb. 3.75 - —
Cadmium iodide, 25-lb. fib. dms. lb. 6.75 - 7.00
Cadmium metal, ingots or sticks, cs., dlvd lb. 1.45 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld. E. of Rockies lb. 1.61 - —
Cadmium-mercury lithopone red, dark shade, bbls., same basis lb. 1.91 - —
light shade, bbls., same basis lb. 1.68 - —
Medium shade, bbls., same basis. lb. 1.83 - —
Medium light shade, bbls., same basis lb. 1.76 - —
Maroon shade, bbls., same basis lb. 1.90 - —
Cadmium-selenide lithopone maroon, bbls., frt. alld. E. of Rockies, lb. 2.73 - —
Maroon, dark shade, bbls., same basis lb. 2.77 - —
Orange, bbls., same basis lb. 1.54 - —
Red, orange-red shade, bbls., same basis lb. 1.62 - —
Red, light shade, bbls., same basis, lb. 1.84 - —
Red, medium-light shade, bbls., same basis lb. 1.96 - —
Red, medium shade, bbls., same basis lb. 2.19 - —
Red, dark shade, bbls., same basis. lb. 2.52 - —
Cadmium-selenide lithopone yellow, all shades, bbls., frt. alld. E. of Rockies lb. 1.15 - —
Caffeine, NF, citrated, cms., 100-lb. lots or more lb. 2.70 - —
USP, nat., cryst., anhyd., 100-lb. lots or more lb. 2.10 - —
cryst., hydrous, dms., 100-lb. lots or more lb. 1.96 - —
Syn., cryst., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
cryst., hydrous, dms., 100-lb. lots or more lb. 1.96 - —
Cajuput oil, native, cns. lb. 1.75 - 2.55
Redist., USP, cns lb. 1.90 - 2.10

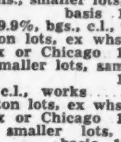
Take a new look at

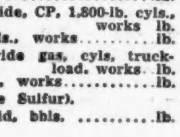
Bromine

any quantity **
anywhere
anytime


Tank Car
60,000 and 100,000 lbs net weight


Tank Truck
14,000 lbs. net weight


Monel Drum
225 lbs. net weight


Glass Bottle
6½ lbs. each
9 a case

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EASTERN SALES OFFICE: 230 Park Avenue
New York 17, New York Phone MU 3-5480

MC

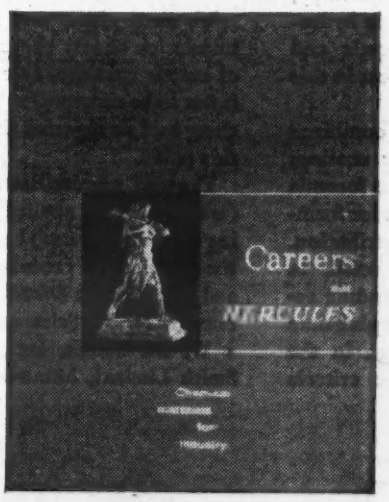
C-58-7 *Reg. U.S. Pat. Off.

Calamine, USP, dms.	lb.	.24	—
Calamus oil, bots	lb.	12.00	-20.00
Calciferol, cryst., 10-kilo or more lots, works	gram.	.54	—
1-10 kilo lots	gram.	.55	—
Calciferol, in edible oil (see Viosterol).			
Calcium p-aminosalicylate, trihydrate, fib, dms., 100 lbs. or more, frt. adjusted	lb.	3.10	—
Calcium arsenate, dealers, bgs., c.l., frt. alld	lb.	.09	.09¼
bgs., l.c.l., same basis	lb.	.10	.10½
Calcium bromide, NF, 100 lbs. or more	lb.	.97	—
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd	ton.	149 00	—
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works	ton.	10.50	—
chalk, whiting, 325 mesh, bgs., c.l., works	ton.	32.00	-34.00
water-grd., ½ to 10 microns, bgs., c.l., works	ton.	30.00	—
10 to 20 microns, bgs., c.l., works	ton.	17.00	-18.00
Calcium carbonate, precip., dense, bgs., c.l., works	ton.	30.00	-35.00
bgs., l.c.l., works	ton.	45.00	-50.00
medium, bgs., c.l., works	ton.	38.00	—
bgs., l.c.l., works	ton.	48.00	—
Calcium carborate, precip., surface treated, bgs., c.l., works	ton.	40.00	-42.00
bgs., l.c.l., works	ton.	55.00	-57.00
ultrafine, bgs., c.l., works	ton.	117.50	167.50
bgs., l.c.l., works	ton.	137.50	-187.50
Calcium chloride, flake, 77-80%, paper bgs., c.l., works, frt. equald	ton.	31.00	—
Conc., flake or pellet, 94-97%, paper bgs., c.l., works, frt. equald	ton.	37.80	—
Calcium chloride, powd., 77% min., paper bgs., c.l., works, frt. equald	ton.	37.00	—
Purif., gran., dms.	lb.	.27	—
USP, gran., dms.	lb.	.32	—
Liquor, 40%, tanks, frt. equald.	ton.	12.50	—
Solid, 73-75%, dms., c.l., frt. equald	ton.	29.50	—
dms., l.c.l., works, frt. equald.	ton.	36.00	-73.00
Calcium chromate, bgs., dlvd	lb.	.37	—
Calcium cyanide, dms., c.l., dlvd. E. of Rockies	lb.	.20	—
dms., l.c.l., same basis	lb.	.34	.53
Calcium cyclamate, 100-lb. dms	lb.	1.95	—
Calcium gluconate, AA, ton-lots	lb.	.78½	—
USP, ton-lots	lb.	.66½	—
Calcium hydride, lump, dms., works.	lb.	2.20	3.00
Calcium hypochlorite, high test, 45-lb cs., dlvd. E. of Rockies.	cs.	22.95	-25.10
100-lb. dms., same basis	dm.	30.80	-34.50
Calcium hypophosphite dms., 1,000-lb lots	lb.	1.28	—
Calcium iodide, jars	lb.	4.52	—
Calcium lactate, NF, dms., 10,000-lb. lots or more, works	lb.	.38	.40
smaller lots, works	lb.	.41	.48
Calcium mandelate, USP, dms., works	lb.	2.10	2.25
Calcium naphthenate, liq., 4% Ca., dms., frt. equald	lb.	.30	—
Calcium pantothenate, dms., frt. adjusted	kilo.	35.00	—
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).			
Calcium phenolsulfonate, dms	lb.	1.24	1.25
Calcium phosphate, dibasic, USP, bgs., c.l., frt equald 100 lbs.		8.25	—
bgs., l.c.l., frt. equald 100 lbs.		9.00	—
feed grade, 18½% P, bgs., c.l., t.l., frt. equald	ton.	83.25	—
bgs., c.l., t.l., f.o.b. Texas City works	ton.	77.70	—
bgs., l.c.l., frt. equald	ton.	93.25	—
21% P., bgs., c.l., t.l., frt. equald	ton.	94.50	—
bgs., l.c.l., frt. equald	ton.	104.50	—
Prices of calcium phosphate dibasic in bulk $3 per ton less than bg., c.l. prices			
Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs.		7.45	—
bgs., smaller lots, same basis, 100 lbs.		7.95	—
Calcium phosphate, tribasic, NF, precip., bgs., c.l., works, frt. equald	100 lbs.	9.25	—
bgs., l.c.l., frt. equald.	100 lbs.	10.00	—
Calcium phytate bgs., works	lb.	.50	—
Calcium resinate precip, dms.	ton. lots, frt. alld., works	lb.	.36¼ —
Calcium silicate, hydrated, bgs., c.l., works	lb.	.06	—
bgs., l.c.l., works	lb.	.06½	—
Calcium silicate, paint grade (see Wollastonite).			
Calcium stearate, ctns., c.l.	lb.	.39	—
ctns., l.c.l.	lb.	.40	.44
Calcium sulfate (see Gypsum)			
Calomel, NF X, powd., 100-lb. dms.	lb.	5.42	—
Camphene 46° m.p., dms. incl., c.l., works	lb.	.15	—
dms. incl., l.c.l., same basis	lb.	.16½	—
tanks, same basis	lb.	.12½	—
Camphene, chlorinated 67-69% (see Toxaphene)			
Camphor, monobromated, NF, dms., kgs.	lb.	3.63	3.70
Camphor, nat., USP powd. cs., 100-lb. lots	lb.	.60	.65
tablets, 1-oz. cs.	lb.	.85	.90
USP, gran., powd. bbls., 2,000-lb. lots	lb.	.59	—
Syn., USP, gran., powd., bbls., 1,000-lb. lots	lb.	.60	—
bbls., smaller lots	lb.	.61	—
tablets, ctns., 1,000-lb. lots	lb.	.85	—
ctns. 500-lb. lots	lb.	.86	—
ctns. smaller lots	lb.	.87	—
tech., 1 bbl. or more	lb.	.48	—
Camphor oil, sassafrassy, dms.	lb.	.35	.55
White, dms.	lb.	.26	.50
Cananga oil, native, ens.	lb.	7.25	8.00
Rectified, ens.	lb.	9.55	-11.25
Candelilla wax, crude, bgs.	lb.	.53	.54
Refd., bgs.	lb.	.59	.61
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.			
Cantharides, Chinese, cs.	lb.	2.00	2.05
powd., bxs.	lb.	2.25	2.30
Russian, bgs.	lb.	2.75	—
powd., bxs.	lb.	3.00	3.25
Capric acid, dms.	lb.	.31½	.34
tanks	lb.	.29	—
Capryl alcohol, 85% dms., c.l., and t.l., works	lb.	.19	—
dms., t.t.l., same basis	lb.	.19½	—
tanks, frt. equald	lb.	.16½	—
Sec. 92-99%, dms., c.l.	lb.	.22	—
dms., l.c.l.	lb.	.23	—
tanks	lb.	.19½	—
Caprylic acid, dms.	lb.	.31½	.34
tanks	lb.	.29	—
Capsicum (see Pepper red).			
Capsicum oil (see Capsicum oleoresin).			
Capsicum oleoresin, NF, from dom. pepper, dms	lb.	4.00	4.75
NF, from African pepper, dms	lb.	4.50	5.25
Caraway oil, dms	lb.	3.10	3.50
Caraway seed, Dutch, bgs	lb.	.13	—
Polish, bgs.	lb.	.12	—
Carbazole, 97%, bbls. ton lots, works	lb.	1.03	—
Carbon black, channel, rubber beads, bulk, c.l., works	lb.	.07¼	—
bgs., c.l., works	lb.	.07¾	—
bgs., l.c.l., works	lb.	.14½	—
Carbon black, furnace, fast extruding, bgs., c.l., works	lb.	.06¾	—
ctns., l.c.l., whse.	lb.	.12½	—
high abrasion, bulk, c.l., works.	lb.	.07¼	—
bgs., c.l., works	lb.	.07¾	—
bgs., l.c.l., dlvd. or whse	lb.	.13½	—
high modulus, bgs., c.l., works.	lb.	.06¼	—
ctns., l.c.l., whse.	lb.	.12	—
semi-reinforcing, bgs. c.l., works.	lb.	.05¾	—
bgs., ctns., l.c.l., whse	lb.	.11½	—
Carbon black, pigment, high color beads, ctns., c.l., works	lb.	.72	—
ctns., l.c.l., dlvd. or whse	lb.	.79	—
medium color, uncompressed, bgs., c.l., works	lb.	.13½	—
bgs., l.c.l., dlvd. or whse.	lb.	.21	—
Carbon dioxide indust. wholesale, bulk, dlvd., Metropolitan area	ton.	73.00	-115.00
50-lb. cyls., dlvd.	lb.	.09	.11
Solid, bulk, wholesale, works	ton.	85.00	—
Carbon disulfide, 55-gal. dms. c.l., works, frt. equald to competitive points	lb.	.071	—
55-gal. dms., l.c.l., same basis	lb.	.086	.091
5-gal. dms., 30 dms. to c.l., same basis	lb.	.131	—
Carbon disulfide, 5-gal. dms., less than 30 dms., same basis.	lb.	.161	—
tanks, dlvd.	lb.	.0545	—
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld	lb.	.12¾	—
dms., l.c.l., frt. alld.	lb.	.15¼	—
Carbon tetrachloride, tech., consumers, dms., c.l., t.l., frt. alld.	lb.	.11¾	—
dms., l.c.l., l.t.l., frt. alld	lb.	.14¼	—
tanks, frt. alld.	lb.	.10¾	.11¼
Carboxymethyl cellulose (see CMC).			
Carbromal, NF, dms., 100-lb. lots, works	lb.	4.00	4.25
dms., smaller lots, works	lb.	4.10	4.75
Cardamom oil, NF, bots	lb.	45.00	-55.00
Cardamom seed, bleached "A"	lb.	2.95	—
Bleached "B"	lb.	2.80	—
Decorticated Alleppey, cs.	lb.	2.85	—
Guatemala, cs.	lb.	2.85	—
Green, Alleppey, bgs	lb.	2.05	—
Ceylon, bgs.	lb.	2.25	—
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd.	lb.	16.80	—
bulk, smaller lots, dlvd.	lb.	16.90	-17.30
Carnauba wax, chalky, bgs., ton lots	lb.	.69	.71
North country, No. 2, crude, bgs., ton lots	lb.	.78	.79
refd., pure, ton lots	lb.	.90	.92
Carnauba wax, north country, No. 3, Ceara, crude, bgs., ton lots	lb.	.72	.74
Ceara, refd., pure, bgs., ton lots	lb.	.80	.81
Parnahyba, crude, bgs., ton lots	lb.	74	.76
Parnahyba, refd., pure, bgs., ton lots	lb.	.80	.81
Carnauba wax, yellow, No. 1, Ceara, bgs, ton lots	lb.	1.11	- 1.12
Parnahyba, bgs., ton lots	lb.	1.13	- 1.14
Powdered carnauba wax, 20 to 100 mesh, 8c. higher.			
Carotene, tech., 1,350,000 A units per gram, tins 5-10 kilo lots, dlvd	gram.	.24¼	—
in carrot oil, 5,000,000 to 6,000,000 A units per lb., dms., works	million units.	.12	—
USP, microcrystalline in oil, 400,000 A units per gram, dms., dlvd	million units.	.174	—
b-Carotene in vegetable oil, semi-solid suspension, 400,000 A units per gram, cns	kilo.	69.60	—
Liquid in vegetable oil, 500,000 A units per gram., cns	kilo.	87.00	—
Pure, cryst., 1,600,000 to 1,670,000 A units per gram., cns.	gram.	.29	—
Carvol, bots.	lb.	5.00	5.40
Cascara sagrada bark, bulk	lb.	.30	—
Casein, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works	lb.	.56	—
edible, acid, precip., 80 mesh, bgs., 10,000-lb lots or more, works	lb.	.64	—
Imp., inedible, acid-precip. grd., Argentine, bgs., c.l., ex-dock, Eastern seaports	lb.	.17¾	—
New Zealand, bgs., c.l., same basis	lb.	.24	.24½
Cashewnut shell liquid, treated dms., c.l., Newark, N. J.	lb.	.22	—
dms., ton lots, same basis	lb.	.23	—
dms., dm. lots, same basis	lb.	.25	—
Cassella acid, dms., frt. alld., 100% basis	lb.	1.44	- 1.75

HOW *HERCULES* HELPS...

AIRPORTS FOR THE JET AGE—A record billion dollars will be spent in 1959 on new and enlarged military, municipal, and private airports to meet air transport and defense needs. Hundreds of miles of lengthened, widened runways to handle jet liners will be built with "air-entrained" concrete for greater durability. Vinsol® resin air-entraining agent has been widely specified for such uses since the concept was introduced by the cement industry in the 1930's.

TECHNICAL GRADUATES—This year's seniors who are interested in a career in the chemical industry will find this new booklet a complete explanation of opportunities at Hercules. The company's growth, its diversified products and markets, its training program for new employes, are all covered. Inquiries from qualified students will receive prompt attention from our Personnel Department, which uses the booklet in their recruiting program with college placement offices.



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HERCULES

Cassia, Padang, "A," bls. lb. .29 - —
"B," bls. lb. .27 - —
"C," bls. lb. .26½ -
Korintje "A," bls. lb. .29 - —
"B," bls. lb. .27 - —
"C," bls. lb. .26½ - —
Cassia oil (see Cinnamon leaf oil, USP).
Castor oil, dom., blown, dms., c.l. lb. .2550- —
dms., l.c.l. lb. .2650- —
dehydrated, bodied, dms. c.l. lb. .2700- —
dms., l.c.l. lb. .2850- —
tanks lb. .2500- —
dehydrated, unbodied, dms., c.l. lb. .2560- —
dms., l.c.l. lb. .2660- —
tanks lb. .2360- —
hydrogenated, bgs., ton lots lb. .2750- —
bgs., l.c.l., dlvd lb. .2950- —
No. 1, dms., c.l. lb. .2150- —
dms., l.c.l. lb. .2250- —
tanks lb. .1950- —
No. 3, tech., dms., c.l. lb. .2125- —
dms., l.c.l. lb. .2225- —
tanks lb. .1925- —
Refd. and deodorized, dms., c.l. lb. .2650- —
dms., l.c.l. lb. .2750- —
USP, dms., c.l. lb. .2350- —
dms., l.c.l. lb. .2450- —
tanks lb. .2150- —
Imp., No. 1, Brazilian, tanks lb. .14¼- —
Castor oil, sulfonated, 50%, dms., works lb. .15 - .15¼
75%, dms., works lb. .19 - .20

Castor oil acids, dehydrated, dms. lb. .44¼- .46¼
Split, dms. lb. .37¼- .38¼
Castor pomace, bgs., c.l., works ton 35.00 - —
Castoreum, nat., cns. lb. 5.25 - —
Syn., cns. lb. 9.00 - —
Catechol, CP, cryst., fib., dms., works lb. 2.17½- —
Resub., dms., works lb. 4.29½- —
Catnip leaves, Southern, bls. lb. .75 - —
Caustic potash (see Potash caustic).
Caustic soda (see Soda, caustic).
Cedarleaf oil, USP XIII cns., dms. lb. 2.85 - 3.75
Cedarwood oil, cns., dms. lb. .51 - .65
Celery seed, French, bgs. lb. .29 - —
Indian, bgs. lb. .22 - —
Cellulose acetate, flake, powd., bgs. ctns., 100-lb. lots or more, dlvd., E. lb. .39 - .45
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb. .545 - .555
27% butyryl content, bgs., dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
38% butyryl content, half-second, bgs., dlvd. E lb. .545 - .555
80% butyryl content, bgs., dlvd., E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).

Cellulose gum, pure, high vis., bgs., 23,000-lb lots or more works, frt. alld lb. .57 - —
bgs, smaller lots, same basis, lb. .59 - —
Cerium chloride, 43%, dms., dlvd lb. .25 - —
Cerium hydrate, 74% CeO fib. dms., 100-lb. lots or more lb. 1.40 - —
77% CeO, fib. dms. 100-lb. lots or more lb. 1.74 - —
Cerium oxalate (see Rare earth oxalate).
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd lb. 1.85 - 1.90
bgs., smaller lots, dlvd. lb. 1.95 - —
Cetyl alcohol, NF, special, fib. cns., c.l., t.l., dlvd. E lb. .48½- —
fib. cns., l.c.l., same basis lb. .50½- —
tanks, same basis lb. .46 - —
NF, fib. cns., c.l., t.l., dlvd. E lb. .41½- —
fib. cns., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .39 - —
Chalk (see Calcium carbonate).
Chamomile flowers, Hungarian, bls lb. 2.25 - —
Roman, cs. lb. 2.25 - —
Chamomile oil, blue Hungarian, bots lb. 350.00 - —
Charcoal, activated, NF, fib dms. c.l., works lb. .25 - .32
fib. dms., 5-ton lots, works lb. .26½- .32½
fib. dms., smaller lots, works lb. .27 - .50
Charcoal, black (see Charcoal, activated).
Charcoal, bone (see Bone black).
Charcoal, hardwood, lump bulk, c.l., f.o.b. plant ton 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton 78.00 - 80.00
5-lb. paper bgs., c.l., same basis ton 106.00 - —

Charcoal, hardwood, briquets, 25-lb. paper bgs., c.l., f.o.b. plant ton 87.00 - —
40-lb. paper bgs. c.l., same basis ton 84.00 - —
Chenopodium oil, NF, cns lb. 4.35 - 5.25
Chicago acid paste, bbls. frt. alld. lb. 3.21 - —
Chinawood oil (see Tung oil).
Chloral, tech, 94% min., dms., c.l., works lb. .23 - —
dms., l.c.l., works lb. .24 - —
tanks, multiple units, 5 cars, works lb. .21 - —
Chloral hydrate, USP, jars, 1,000-lb lots lb. 1.00 - —
jars, 500-lb. lots. lb. 1.03 - —
jars, 100-lb lots or less lb. 1.05 - —
Chlordan, agricultural, dms., c.l., frt. alld lb. .65 - —
dms. l.c.l. 5,000 to 10,000-lb. lots, frt. alld lb. .66 - —
Chlordan, clarified, dms. c.l., frt. alld lb. .69 - —
dms., l.c.l., 5,000-10,000-lb lots, frt alld lb. .70 - —
Chlorinated paraffin, 42%, dms., c.l. frt alld lb. .16¼ - —
dms. l.c.l. 10 dms or more, same basis lb. .17¼ - —
70%, dms., c.l., same basis lb. .18½- —
dms. l.c.l. 10 dms or more, same basis lb. .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works lb. .60 - —
ctns., l.c.l., works lb. .61 - —
Chlorinated rubber, 125, 1,000 cps., ctns., c.l., works lb. .70 - —
ctns., l.c.l., works lb. .71 - —
Chlorine, liq., cyls., c.l., works, frt. equald lb. .11 - —
cyls., l.c.l. Metropolitan area lb. .12½- .13¼
tanks, single units, works, frt. equald 100 lbs. 3.15 - —
tanks, multiple units, 5 cars, works, frt. equald 100 lbs. 4.05 - —
tanks, multiple units 4 cars, same basis 100 lbs. 4.25 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.25 - 5.75
tanks, multiple units, 1 car, same basis 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99%, dms c.l lb. .23½- .25½
dms., l.c.l. lb. .24½- —
tech flake, 96-97%, dms., c.l., frt. equald lb. .19 - —
dms., l.c.l., frt. equald lb. .20 - —
4-Chloro-2-aminotoluene, fused, bbls. lb. 1.45 - —
m-Chloroaniline, dms., c.l., frt. alld. lb. .75 - —
dms., l.c.l., same basis lb. .77 - —
tanks, same basis lb. .73 - —
o-Chloroaniline, dms., c.l., frt. alld. lb. .52 - —
dms., l.c.l., same basis lb. .54 - —
tanks, same basis lb. .50 - —
p-Chloroaniline, dms., c.l., frt. alld. lb. .77 - —
dms., l.c.l., same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works, dlvd. to N.Y. Metropolitan area lb. 1.05 - —
dms., l.t.l., same basis lb. 1.20 - —
p-Chlorobenzaldehyde, dms., l.c.l., works, dlvd. to N. Y. Metropolitan area lb. 1.95 - —
o-Chlorobenzoic acid, fib. dms., t.l., works lb. 1.10 - —
fib. dms., smaller lots, works lb. 1.25 - —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works. lb. 2.25 - —
fib. dms., less than 2,000-lbs., same basis lb. 2.30 - —
Chloroform, tech., dms., c.l., dlvd. E lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms., c.l., dlvd lb. .27 - —
dms., l.c.l., dlvd lb. .30 - —
tanks, minimum 4,000 gals., dlvd. lb. .23 - —
2-Chloro-4-nitroaniline, paste, dlvd. E, 100% basis lb. .81 - —
Powd. dlvd. E, 100% basis lb. .86½- —
4-Chloro-2-nitroaniline, powd., dlvd, E lb. .80½- —
o-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
p-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
Chloropicrin, coml., cyls., 120 lbs., frt. alld lb. 1.07 - —
cyls., 100 lbs., same basis lb. 1.08 - —
cyls., 50 lbs., same basis lb. 1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald lb. .0465- —
dms., l.c.l., frt. equald lb. .0515- —
tanks, frt. equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms. ½c. per lb higher
Choline bitartrate, fib dms., frt. adjusted kilo. 2.75 - 3.00
Choline chloride, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Chrome green, CP, dark, ugnt medium blue content 1-15%, bbls., dlvd. E. of Rockies lb. .40 - .42
blue content 16-30%, bbls., same basis lb. .40 - .42
blue content 31-45%, bbls., same basis lb. .41 - .43
blue content 45-49%, bbls., same basis lb. .44 - .46
Reduced color, 25% lb. .19 - .20
Chrome green prices 1c. higher W. of Rockies.
Chrome orange, CP, bbls., dlvd. E. of Rockies lb. .31½- —
Chrome orange prices 1c. higher W. of Rockies.
Chrome yellow, CP, bbls., dlvd. E. of Rockies lb. .31½- —
Chrome yellow price 1c. higher W. of Rockies.
Chromic acid, 99¾% dms., c.l., works, frt. equald lb. .29½- —
dms., l.c.l., dlvd. N. Y. Metropolitan area lb. .30 - .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, NF, yellow, broken, bgs. lb. .35 - .40
dms., 500-2,000-lb. lots, works. lb. .10 - —
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld lb. 1.20 - —
Pure, bgs., c.l., frt. alld. lb. .44½- —
bgs., l.c.l., same basis lb. .45¼- —
Chromium trioxide, NF, bots lb. 1.15 - —
Cinchona bark, NF, red, broken, bgs lb. .35 - .40
Chromium fluoride, bbls., works lb. .51 - .53
Cinnamic acid, refd. bots. lb. 2.50 - 3.50
Cinnamic alcohol, bots lb. 1.90 - 2.20
Cinnamic aldehyde, dms. lb. .95 - 1.25
Cinnamon, Ceylon No. 2, bgs. lb. .76 - —
Ceylon, "0000," bgs lb. .87 - —
Cinnamon bark oil, bots lb. 36.00 -70.00
Cinnamon leaf oil, crude, dms. lb. 1.35 - 2.00
USP (Cassia), cns., dms. lb. 8.50 -13.50
Citral, CP, bots lb. 3.00 - 3.65
Extra, bots. lb. 3.45 - 5.05

In the stomach, stubborn integrity;

in the intestine, swift dissolution—

***en français,* an accolade for**

cellulose acetate phthalate

In Paris, the City of Light, at 23, rue de l'Ecole-de-Médecine, there has been published a brochure bearing the title, "Les enrobages modernes des dragées et des pilules." It devotes itself in part to cellulose acetate phthalate, a substance of our invention.

States this magnificent document (as inadequately rendered into the English tongue by our own poor efforts):

"But the largest part of our work was reserved for cellulose acetate phthalate. This product is extremely insoluble in the acid solutions and its solubility in pancreatic medium is due in part to a fermenting action which can be produced independently of pH, but can equally work in an alkaline medium. According to the fine demonstration of our co-worker, (name omitted in this quotation from considerations of privacy), cellulose acetate phthalate is an ester which is hydrolyzed by esterase with a formation of acetic and phthalic acids and this explains all the interest in this new coating.

"We believe we have demonstrated that it combines all the qualities required of a true enteric coating: First, it is devoid of all toxicity; Second, the formula which we have used combines the conditions for forming on a core a coating layer of uniform distribution.

"Moreover, the numerous experiments effected, 'in vitro' and 'in vivo' gave absolutely corresponding results and demonstrated that: thirdly, acetate phthalate coating resists perfectly prolonged passage in the stomach surpassing, by far, even the base criteria which we have established.

"Fourthly, it disappears very rapidly in an intestinal medium and in a lapse of time which we may estimate as under a half hour, whether the medium be alkaline or acid. This last peculiarity, characteristic of acetate phthalate, ranks this coating incontestably at the head of all those which we have tried and allows us to conclude that among these it is practically the only one responding exactly to the requirements of the trade.

"Two important factors remain which we must not overlook in that they concern the pharmaceutical industry. Fifthly, the technique of applying this coating is extremely simple and rapid, and sixth, its price is slightly higher than that of other enteric coatings, but it remains within the normal limits and does not otherwise appreciably influence the cost of manufacture."

We shall gladly and at our own expense provide a translation of fifty pages from this comprehensive study of enteric coatings. Our distribution of the translation is not to be construed as adopting or recommending anything said or reported therein. Legal personalities stress this point.

The true, genuine Eastman Cellulose Acetate Phthalate (which has been applied to well over a billion doses during the past 18 years) bears the trademark "C-A-P." For the translation, procedural bulletin, descriptive folder, and prices, write *Distillation Products Industries,* Rochester 3, N. Y. Sales offices: New York and Chicago • W. M. Gillies, Inc., West Coast • Charles Albert Smith Limited, Montreal and Toronto.

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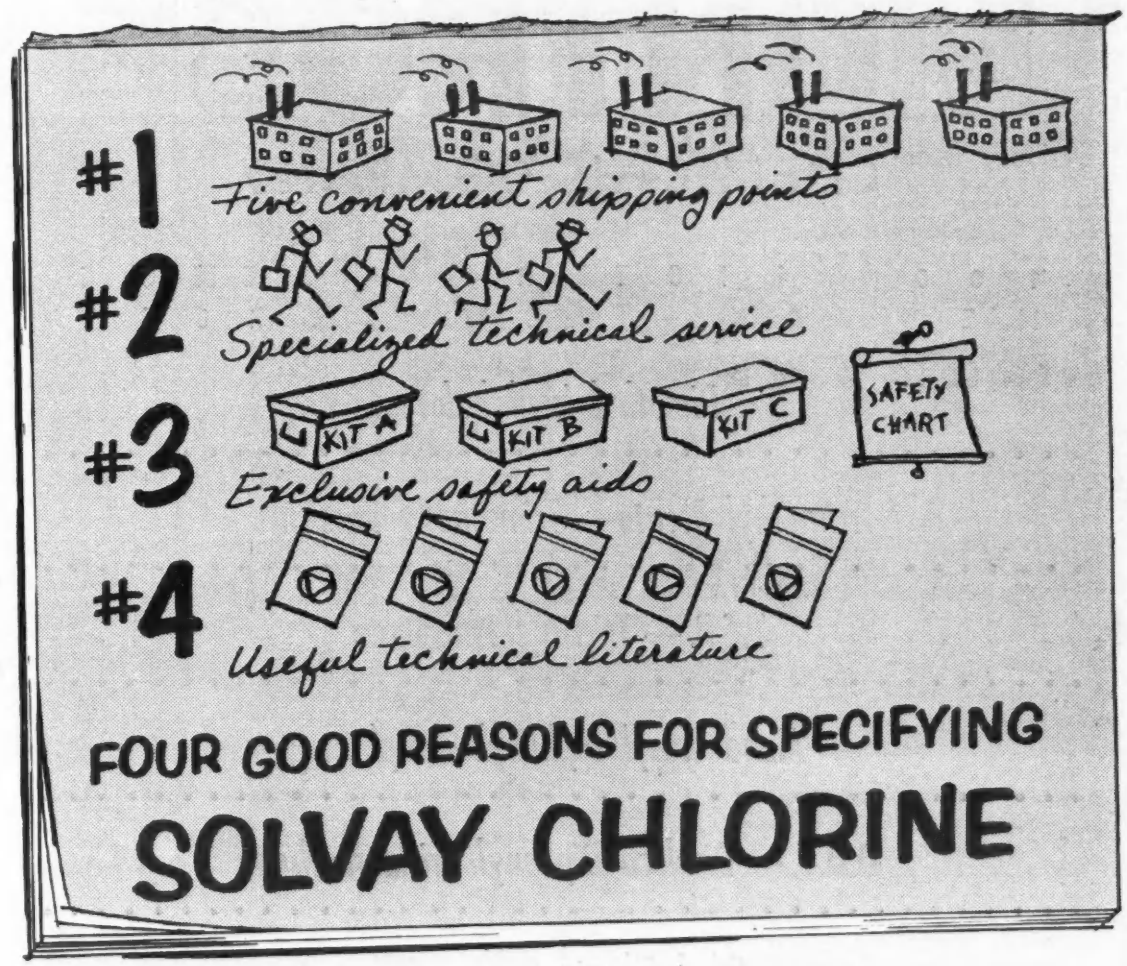
Distillation Products Industries *is a division of* **Eastman Kodak Company**

Citric acid, USP, anhyd., fine gran., bgs., dms., c.l lb. .29¼- .30
bgs., dms., 10,000-lb. lots, 1 shipt lb. .30 - .30¼
bgs., dms., smaller lots lb. .30¼- .31
hydrous, fine gran. bgs., dms., c.l lb. .27½- .28
bgs., dms., 10,000-lb. lots, 1 shipt lb. .28 - .28½
bgs., dms., smaller lots lb. .29 - .29½
Powdered citric acid ½c. higher
Citronella oil, Ceylon, dms. lb. .54 - .95
Java-type, dms. lb. .52 - .95
Citronellol, bots., dms lb. 2.30 - 3.30
Civet, artif., bots. lb. 13.75 -15.00
Nat., bots. oz. 8.50 -15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn ton. 17.50 -21.50
crushed, shed moisture, bulk, c.l. Tenn ton. 8.00 -11.00
Imp., airfloated, bgs., c.l., Atl. port net-ton. 42.00 -45.75
lump, bulk, Atl. port net-ton. 29.50 -35.75
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs. c.l., works. ton. 10.00 -12.00
Georgia, bgs., l.c.l. works. ton. 15.50 - —
Clay, China, dom., airfloated, 99%, 300 mesh bgs., c.l., Georgia, works ton. 13.50 -14.50
bgs. l.c.l., ex-whse ton. 35.00 -36.00
Clay, China, imp., white, lump, bulk, c.l., ex dock, Philadelphia, Portland, Me long-ton. 20.00 -35.00
powd., bgs., c.l. ex dock, net-ton. 50.00 - —
bgs., l.c.l., ex whse net-ton. 60.00 -70.00
Cleaner's naphtha, petroleum, 140°F, flash, tanks, east coast, New Jersey and New York gal. .18 - —
tanks, group 3 gal. .15 - .15½
tanks, Houston, Tex. gal. .19 - —
tankwagon, Newark gal. .19 - —
New York gal. .19 - —
Philadelphia gal. .19½- —
Cleve's acid, mixed, bbls. lb. 1.05 - —
Cloves, Madagascar, bgs lb. .36 - —
Zanzibar, bgs. lb. .40 - —
Clove bud oil, USP dms. lb. 2.60 - 3.35
Clove leaf oil, crude, dms lb. 1.00 - 1.35
CMC, crude, 96.4% low or medium vis. bgs. or fib. dms., 23,000 lbs., dlvd E., 100% basis lb. .41½- —
96.4% low. or medium vis., bgs. or fib. dms., 23,000 lbs. dlvd E., 100% basis lb. .43½- —
CMC, crude, 65% low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis. lb. .41½- —
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis lb. .43½- —
CMC, purif. high vis. (see Cellulose gum).
CMC, standard, low or medium vis., bgs., 23,000 lbs., works, frt. alld lb. .57 - —
bgs., smaller lots, same basis, lb. .59 - —
CMC prices W. of the Rockies are 2c. per lb lower and are on a works basis.
Coaltar, crude, resale for solns., tanks, works gal. .17 - —
Coaltar, refd., resale, indust., dms., c.l., ex whse gal. .35 - —
dms., l.c.l., ex whse. gal. .39 - —
tanks, works gal. .20½- —
Coaltar pitch, aluminum, bulk, works ton. 44.00 - —
Carbon and indust., bulk, works. ton. 44.00 - —
Core, bulk, works ton. 40.50 - —
Fiber, bulk, works ton. 48.00 - —
Roofing, 140-155°F., Federal Specification RP-381 Type 1, tanks, works ton. 41.00 - —
Cobalt acetate, 23.7% Co., dms. dlvd lb. 1.10 - —
Cobalt blue, genuine, 250 lb. bbls., dlvd. E. of Rockies lb. 4.90 - —
Cobalt blue prices 1c. higher W. of Rockies.
Cobalt blue, imitation (see Ultramarine blue).
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.57 - —
Cobalt chloride, 24.2% Co., dms., dlvd lb. 1.05 - —
Cobalt hydrate, 60-61% Co., dms., dlvd. lb. 2.20 - —
Cobalt linoleate, fused 8½% Co., dms. lb. .71½- —
Liq., 6% Co., dms. lb. .57½- —
Cobalt metal, 97-99%, dms. f.o.b. carrier lb. 1.75 - —
Cobalt naphthenate, liq., 6% Co., dms., dlvd lb. .48¾- —
Cobalt nitrate, 20.1% Co. bbls. dlvd. lb. .85 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., dlvd. E. of Rockies lb. 1.33 - —
70-71% Co., kgs, same basis lb. 1.29 - —
Cobalt phosphate, powd., 32.1% Co., kgs., dlvd lb. 1.43 - —
Cobalt resinate, fused 3% Co. dms. lb. .29½- —
Cobalt sulfate, cryst., 21% Co, dms., dlvd lb. .69 - —
Cobalt sulfate, monohydrated, 33% Co, dms., dlvd lb. 1.17 - —
Cobalt tallate, 6% Co. dms., dlvd. lb. .44 - —
Cocaine, USP, cns., 100-oz. lots oz. 17.80 - —
Cocaine hydrochloride, cns., 100-oz. lots oz. 13.75 - —
Cocillana bark, bls. lb. .22 - —
Cocoa butter, bgs. lb. .72 - .77
Coconut oil, crude, tanks, New York lb. .21 - —
tanks, Pac. coast lb. .19¼- —
Refd., deodorized, dms., l.c.l. lb. .26 - —
Coconut oil acids, dist., dms lb. .26½- .29
tanks lb. .24 - —
double dist. (stripped), dms lb. .27½- .30
tanks lb. .25 - —
Cod oil, dms., spot lb. .09¼- .09¾
Codeine, NF, cns., 100-oz lots oz. 13.25 - —
Codeine hydrochloride, cns., 100-oz. lots oz. 11.75 - —
Codeine phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Codeine sulfate, USP, cns., 100-oz. lots oz. 10.75 - —
Codliver oil, USP, dms. gal. 1.40 - 1.45
Cohosh root, black, bls. lb. .20 - .22
Blue, bls. lb. .20 - .22
Colchicine, USP, bots. oz. 27.50 -31.00
Colchicum root, bls. lb. .35 - —
Colchicum seed, bgs. lb. .55 - —
Collodion, USP, dms. lb. .32½- —
Flexible, dms. lb. .34 - —
Colocynth pulp, bls. lb. .72 - —
Colombo root, bls. lb. .15 - .16
Condurango bark, bls. lb. .26 - —
Congo copal gum, No. 1, bgs. lb. .25 - .26
No. 2 bgs. lb. .22 - .24
No. 3, bgs. lb. .15¾- .17
Copaiba balsam, cns., dms. lb. .50 - .95
Copaiba oil, cns. lb. 1.75 - 2.50
Copper acetate, bbls., c.l., works. lb. .53 - —
bbls., l.c.l., works lb. .54 - —
Copper carbonate, 55%, bgs., c.l., works lb. .34 - —
bgs., l.c.l., works lb. .35½- —

Copper chloride, cuprie, anhyd., dms., works lb. .44 - .44¼
Cryst., dihydrate, dms., works, lb. .30 - .30½
Cryst., dried, dms., works lb. .38¼- .38¾
Copper chloride, cuprous, dms., works lb. .39¼- .42¼
Copper cyanide, tech., dms., 20,000-lb lots or more lb. .609 - —
dms., 1,000-lb. lots or more lb. .619 - —
dms., smaller lots lb. .639 - .659
Copper gluconate, dms. lb. 3.20 - —
Copper hydrate, dms., c.l., frt. alld. E. of Miss lb. .50¾- —
dms., l.c.l., same basis lb. .51¼- —
Copper metal, electrolytic, dlvd. Valley basis lb. .30 - —
Copper naphthenate, liq., 8% Cu, dms., frt. alld lb. .26½- —
Copper nitrate, tech., cryst., dms., works lb. .32¼- .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 - —
Copper oxide, black, bbls., 100-5,000-lb. lots, works lb. .46¼- —
Copper oxide, red, 97%, USN Type I, bbls., 100-5,000-lb. lots lb. .47 - —
90% USN Type II, bbls., 100-5,000-lb. lots or more, works. lb. .45 - —
Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 - —
10% active quinolinolate, dms lb. 1.14 1.15
Copper resinate, precip, dms., frt. alld lb. .36½- —
Copper sulfate, CP, gran., dms., works lb. .1880- —
Cryst., 98%, bgs., c.l., works. 100 lbs. 11.90 - —
bgs., l.c.l., works 100 lbs. 12.40 -14.90

Copper sulfate, monohydrated, 35%, dms., c.l., works 100 lbs. 22.50 - —
dms., l.c.l., works 100 lbs. 23.25 - —
Copper sulfate tribasic, distributors, bgs., c.l., works 100 lbs. 27.40 - —
bgs., l.c.l., works 100 lbs. 28.40 -31.40
Copper undecylenate, dms. lb. 2.75 - —
Copra, Atl., Gulf ports, c.i.f. ton. 265.00 - —
Pac. ports, c.i.f. lb. 260.00 - —
Coriander oil, USP, bots. lb. 9.25 -11.50
Coriander seed, Moroccan, bgs lb. .08¼- —
Rumanian, bgs. lb. .07 - —
Yugoslavian, bgs. lb. .08½- —
Corn oil, crude tanks, works lb. .11¾- —
Foots (soapstock) acid 95%, tanks, New York lb. .05 Nom.
Refd., salad, dms. lb. .1710- .1735
tanks lb. .1510- —
Corn oil acids, dist., dms lb. .16¾- .19¼
tanks lb. .14¼- —
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min 100 lbs. 7.30 - —
paper bgs., l.c.l 100 lbs. 7.45 - —
Corn syrup, 42° Be., non-ret. dms., c.l 100 lbs. 7.31 - —
non-ret. dms., l.c.l. 100 lbs. 7.46 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, kilo or more gram. 1.90 - 2.00
Costus oil, bots. oz. 6.00 - —
Cottonseed meal, 41%, bgs., Memphis ton. 68.00 - —

Cottonseed oil, crude, tanks, South, East lb. .11 - .11¼
tanks, Valley lb. .10¾- .10⅞
tanks, Texas, Lubbock lb. .10⅝- —
tanks, Texas, Waco lb. .10¾- —
Foots (soapstock), acid 95%, tanks, New York lb. .04 - —
Refd., salad, dms. lb. .16¼- .16½
tanks lb. .14¼- —
Cottonseed oil acids, dist., dms lb. .16¾- .19¼
tanks lb. .14¼- —
Cottonseed pitch, raw, dms., works. lb. .03 - .03¼
tanks, same basis lb. .02¾- —
Coumarin, NF, cryst., dms. lb. 3.60 3.70
Cramp bark, NF, bls. lb. .85 - .90
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots. cbys. lb. 3.05 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .22 - —
crude, soln. 80%, tanks, works. gal. .21 - —
refd., dms., c.l., works gal. .42 - .44
dms., l.c.l., same basis gal. .53 - .55
tanks, same basis gal. .33 - .35
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per ballon for coaltar.
Creosote oil (see Creosote coaltar).
Creosote, beechwood, cbys., dms., f.o.b., works, dlvd. in Metropolitan area lb. 1.72 1.77
Hardwood, NF, cbys., dms., same basis lb. 1.42 1.47



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Creosote, pinewood, dms., incl., c.l., works..lb. .0561- —
dms. incl., l.c.l., works.....lb. .0634- —
dms. incl., l.c.l., ex whse, New York..lb. .0743- —
tanks, works.....lb. .0460- —
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld..lb. .16½- —
non-ret. dms., l.c.l., same basis..lb. .17½- —
tanks, same basis.....lb. .145 - —
USP, non-ret. dms., c.l., same basis..lb. .18 - —
non-ret. dms., l.c.l., same basis..lb. .19 - —
tanks, same basis.....lb. .16 - —
m-Cresol, 95-96%, dms., c.l., works. lb. .60 - —
dms., l.c.l., works.....lb. .61 - —
m-p-Cresol, 8-95% 3°C., dms., c.l., frt. equald..lb. .18 - —
dms., l.c.l., same basis.....lb. .19 - —
tanks, same basis.....lb. .16 - —
2.97% 2°C., dms., c.l., frt. equald. lb. .22 - —
dms., l.c.l., same basis.....lb. .23 - —
tanks, same basis.....lb. .20 - —
o-Cresol, 30.5°C. m.p. and over, ret. dms., c.l., frt. equald..lb. .17 - —
ret. dms., l.c.l., same basis..lb. .18 - —
tanks, same basis.....lb. .15 - —
o-Cresol, 30°-30.49°C. m.p., dms., c.l., frt. equald..lb. .16½- —
ret. dms., l.c.l., same basis..lb. .17½- —
tanks, same basis.....lb. .14½- —

o-Cresol, 29°-29.9°C. m.p., dms., c.l., frt. equald..lb. .16 - —
ret. dms., l.c.l., same basis..lb. .17 - —
tanks, same basis.....lb. .14 - —
25°-28.9°C. m.p., dms., c.l., frt. equald. lb. .15 - —
ret. dms., l.c.l., same basis..lb. .16 - —
tanks, same basis.....lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd..lb. .52 - —
dms., l.c.l., dlvd. .....lb. .53 - —
tanks, dlvd. .....lb. .49 - —
2,3-Cresotic acid, dms., ton lots, works..lb. .70 - —
dms., smaller lots, works.....lb. .72 - —
p-Cresyl methyl ether, cns. ....lb. 1.80 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt. equald..gal. 1.35 - —
dms., l.c.l., same basis.....gal. 1.40 - —
tanks, same basis.....gal. 1.15 - —
Cresylic acid, coaltar, dom., meta-para content 25% or less, dms., c.l., t.l., same basis gal. 1.20 - —
dms., l.c.l., same basis....gal. 1.25 - —
tanks, frt. equald. .....gal. 1.00 - —
Cresylic acid, coaltar, imp., meta-para content, 25% or less, f.o.b. works, frt. equald. to competitive points, 50 dms. or more..gal. 1.03½- —
less than 50 dms., same basis. gal. 1.05 - 1.15
tanks, same basis.....gal. 1.00 - —

Crotonaldehyde, 91-93%, dms., l.c.l., works..lb. .33 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., works..lb. .31 - —
Cryolite, nat., indust., bgs., c.l., works..100 lbs.13.00 - —
bgs., l.c.l., works.....100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., c.l., t.l., works..lb. .25 - —
Cubeb berries, NF, bgs.....lb. .90 - —
Powd., cs. .....lb. .95 - —
Cubeb oil, cns. .....lb.12.00 -16.00
Cumene, dms., c.l., works.....lb. .12 - —
dms., l.c.l., works.....lb. .14 - —
tanks, works .....lb. .11 - —
Cumin seed, Iranian, bgs.....lb. .35 - —
Moroccan, bgs. .....lb. No prices.
Turkish, bgs. .....lb. No prices.
Cumin seed oil, bots., cns. .....lb.15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract..ton.57.00 - —
pulv., 21% N, bgs., works, unit-ton. 2.85 - —
Cyanamide, indust. grade, bgs., c.l., works..ton.75.00 - —
bgs., l.c.l., works.....ton.96.00 - —
Indust. grade, 6-16 mesh, dms., c.l., works..ton.120.00 - —
dms., l.c.l., works.....ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. E. of Rockies....gal. 1.02 - —
dms., l.c.l., same basis....gal. 1.10 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. W. of Rockies..gal. .77 - —
dms., l.c.l., same basis.....gal. .85 - —
tanks, works .....gal. .55 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld. E..lb. .28½- —
dms., l.c.l., works, same basis. lb. .29½- —
tanks, works, same basis....lb. .26 - —

Cyclohexanone, tech., dms., c.l., works..lb. .34½- —
dms., l.c.l., works.....lb. .37 - —
tanks, works .....lb. .31 - —
Cyclohexylamine, dms., c.l., works. lb. .49 - —
dms., l.c.l., works .....lb. .50 - —
tanks, works .....lb. .47 - —
Cyclopropane, CP, 2-lb. cyls., works. cyl.48.00 - —
6-oz cyls., works .....cyl.12.00 - —
Cyclopropane, USP, hospitals, cyls., 40-gal. lots..gal. .42 - —
cyls., 100-gal lots .....gal. .41 - —
cyls., 200-gal. lots .....gal. .40 - —
Cypress oil, bots. .....lb. 5.30 - —

D

2,4-D, tech., bgs., dms., c.l., works, frt. equald lb. .40 - —
bgs., dms., l.c.l., same basis lb. .45 - .49
2,4-D butyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., same basis.....lb. .48 - .52
tanks, same basis.....lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., works.....lb. .48 - .52
tanks, works .....lb. .42 - —
Dammar gum, Batavia, A/E, cs. lb. No stocks.
East India, Batu, bold, bgs. ....lb. .13¾- .15
nubs and chips, bgs .....lb. .08½- .09½
black, bold, bgs .....lb. .14½- .16½
nubs and chips, bgs.....lb. .12¼- .13½
unscraped, bgs. .....lb. .13 - .14½
pale, chips, bgs .....lb. .14½- .16
nubs and chips, bgs....lb. .09 - .10
Siam, cs. .....lb. .30 - .33
Singapore, No. 1, bgs.....lb. .36 - .41
No. 2, bgs.....lb. .29 - .32
No. 3, bgs.....lb. No stocks.
dust, bgs. .....lb. .17 - .19
Dandelion root, bls.....lb. .28 - —
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 - .47
fib. dms., l.c.l., works .....lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd. lb. .23 - —
bgs., smaller lots, same basis. lb. .25 - —
fib. dms., c.l., same basis...lb. .24 - —
fib. dms., smaller lots, same basis..lb. .26 - —
Powdered DDT 1c. per pound higher.
1-Decanol, tech., dms., c.l., dlvd. E. lb. .41½- —
dms., l.c.l., dlvd. E. .....lb. .43½- —
tanks, dlvd. E. .....lb. .39 - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd..lb. .23½- —
dms., l.c.l., dlvd.....lb. .25 - —
tanks, dlvd. .....lb. .21 - —
Perfume grade, bots.....lb. 1.75 - 2.00
Decyl alcohol, normal (see 1-Decanol).
Deertongue leaves, bls.....lb. .45 - —
Defluorinated phosphate, feed grade, 13% P, paper bgs., c.l., t.l., works ton.51.00 - —
17% P, paper bgs., c.l., works. ton.60.00 - —
paper bgs., t.l., works..ton.60.75 - —
18% P, paper bgs., c.l., t.l., works ton.69.12 - —
19% P, paper bgs., works, Houston, Tex., c.l., t.l ton.71.50 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.
Degras, common, bbls.....lb. .10 - .12
Neutral, bbls. .....lb. .21 - .23
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies gal. .69½- —
dms., l.c.l., same basis .....gal. .74½- .80½
tanks, dlvd., same basis....gal. .53½- —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies..gal. .72 - —
dms., l.c.l., same basis.....gal. .77 - .83
tanks, same basis.....gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis...gal. .75½- .81½
tanks, same basis.....gal. .54½- —
SD2B, dms., c.l., dlvd. E. of Rockies..gal. .69 - —
dms., l.c.l., same basis...gal. .74 - .80
tanks, same basis.....gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis...gal. .73 - .79
tanks, same basis.....gal. .52 - —
SD23A, dms., l.c.l., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis...gal. .75½- .81½
tanks, same basis.....gal. .54½- —
SD23H, dms., c.l., dlvd. E. of Rockies..gal. .71 - —
dms., l.c.l., same basis...gal. .76 - .82
tanks, same basis.....gal. .55 - —
SD29, dms., c.l., dlvd. E. of Rockies..gal. .69½- —
dms., l.c.l., same basis...gal. .74½- .80½
tanks, same basis.....gal. .53½- —
SD30, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis...gal. .73 - .79
tanks, same basis.....gal. .52 - —
SD-35A, dms., c.l., dlvd. E. of Rockies..gal. .71 - —
dms., l.c.l., same basis...gal. .76 - .82
tanks, same basis.....gal. .55 - —
SD-40 dms., c.l. dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis....gal. .75½- .81½
tanks, same basis.....gal. .54½- —
For anhyd. alcohol on above formulas, prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms. lb.15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms. lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.38 - —
paper bgs., l.c.l.....100 lbs. 9.53 - —
Dextrin, corn, canary dark, paper bgs., c.l..100 lbs. 9.22 - —
paper bgs., l.c.l.....100 lbs. 9.37 - —
Dextrin, corn, indust. grade, 6-16 mesh, dms., canary light, paper bgs., c.l..100 lbs. 9.12 - —
paper bgs., l.c.l.....100 lbs. 9.27 - —
white, paper bgs., c.l..100 lbs. 8.96 - —
paper bgs., l.c.l.....100 lbs. 9.11 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.
Dextrose, hydrated, coml., bgs., c.l., ex whse..100 lbs. 7.60 - —
bgs., l.c.l., ex whse..100 lbs. 7.70 - —
Anhyd., coml., bgs., c.l., ex whse. 100 lbs. 8.80 - —
bgs., l.c.l., ex whse....100 lbs. 8.90 - —
Special anhyd., al. foil lined fib. dms., 200-lb. dms..100 lbs.14.70 - —
100-lb. dms.....100 lbs.15.20 - —
USP, dms. .....lb. .19¾- —

MONTROSE
CHEMICAL COMPANY

100 LISTER AVENUE
NEWARK, NEW JERSEY

Dimethyl Isophthalate

Trimethyl Borate — Trimethoxy Boroxine

T.C.P. — Tricresyl Phosphate

Mono Cresyl Diphenyl Phosphate

D.D.T. — Dichloro Diphenyl Trichloroethane

Ethyl Silicate 28% — 40%

D.D.V.P. — Dimethyl Dichloro Vinyl Phosphate
(Minimum 95% Purity)

D.E.T. — Diethyl Toluamide
(Minimum 95% Purity)

EXCLUSIVE SALES AGENTS

R. W. GREEFF & CO., INC.
10 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.
1721 TRIBUNE TOWER, CHICAGO, ILLINOIS

Diacetyl, flavor grade, bots. lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd lb. .17 - —
tanks, dlvd lb. .13 - —
Diacetone alcohol, tech., dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd lb. .16½- —
tanks, dlvd. lb. .12½- —
Diallylamine, dms., c.l., dlvd lb. .98½- —
dms., l.c.l., dlvd lb. 1.00 - —
tanks, dlvd. lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., l.c.l. same basis lb. .94 - —
tanks, same basis lb. .91 - —
p-Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, food grade, dms., l.t.l., dlvd lb. 1.10 - —
2,6-Di-tert-butyl-p-cresol, feed grade, to pre-mix distributors, dms., c.l., t.l., dlvd lb. .87½- —
dms., l.c.l., same basis lb. .91 - —
2,6-Di-tert-butyl-p-cresol, tech., dms., c.l., t.l., dlvd lb. .81 - —
dms., l.c.l., same basis lb. .85 - —
tanks, same basis lb. .79 - —
Dibutyl fumarate, dms., c.l., t.l., frt. alld lb. .33 - —
dms., l.c.l., l.t.l., frt. alld lb. .34 - —
tanks, frt. alld lb. .30½- —
Dibutyl maleate, dms., c.l., t.l., frt. alld lb. .33 - —
dms., l.c.l., l.t.l., dms, frt. alld lb. .34 - —
tanks, frt. alld lb. .30½- —
Dibutyl phthalate, dms., c.l., dvd. E. lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 - —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works lb. .68½- —
tanks, works lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld lb. .65½- —
Dibutylamine, dms., c.l., dlvd lb. .55½- —
dms., l.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .28 - —
dms., l.c.l., dlvd lb. .29½- —
tanks, dlvd. lb. .24½- —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
Dichlorophenoxyacetic acid (see 2,4-D).
2,5-Dichloroaniline, dms., works lb. .83 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt. alld. E lb. .12 - —
dms., 2,000 lbs. or more same basis, lb. .14½- —
1,4-Dichlorobutane, dms., c.l. or t.l., works lb. .33½- —
dms., l.c.l., or l.t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- —
dms., l.c.l., l.t.l., same basis lb. .17 - —
tanks, same basis lb. .13 - —
Dichloropentanes, dist., dms., c.l., works lb. .05 - —
dms., l.c.l., works lb. .06 - —
tanks, works lb. .03 - —
Dicyclohexylamine, dms., c.l., works. lb. .54 - —
dms., l.c.l., works lb. .55 - —
tanks, works lb. .52 - —
Dicyclohexyl phthalate, fib. dms., c.l., works, frt. alld lb. .59½- —
fib. dms., l.c.l., same basis lb. .60 - —
Didecyl phthalate, dms., c.l., works, lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .26¼- —
tankcars, tanktrucks, 2,000 gals., lb. .26 - —
Dieldrin, dms., dlvd lb. 1.85 - —
dms., l.c.l., dlvd lb. 1.90 - —
Diethanolamine, dms., c.l., dlvd. E. lb. .27 - —
dms., l.c.l., same basis lb. .28 - —
tanks, same basis lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .26 - —
dms., l.c.l., frt. alld lb. .27 - —
tanks, frt. alld lb. .25 - —
Diethyl barbituric acid (see Barbital).
Diethylbenzene, dms., t.l., frt. alld. lb. .16½- —
dms., l.t.l., same basis lb. .18½- —
Diethyl carbonate, dms., c.l., f.o.b. works lb. .47½- —
dms., l.c.l., same basis lb. .48½- —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69½- —
dms., l.c.l., dlvd. lb. .71 - —
tanks, dlvd. lb. .67 - —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd lb. .29 - —
Diethyl phthalate, tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .26 - —
Diethyl sulfate, dms., c.l., works lb. .19½- —
dms., l.c.l., works lb. .20¼- —
tanks, works lb. .17½- —
Diethyl toluamide, 80-95% meta isomer, dms., c.l., t.l., works lb. 2.30 - —
5-44 dm. lots, works lb. 2.35 - —
1-4 dm. lots, works lb. 2.40 - —
Diethylamine, dms., c.l., dlvd. E lb. .52 - —
dms., l.c.l., same basis lb. .53½- —
tanks, same basis lb. .49½- —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 - —
dms., l.c.l., same basis lb. .58 - —
tanks, same basis lb. .55 - —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd. E lb. .17¾- —
dms., l.c.l., same basis lb. .18¾- —
tanks, same basis lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .51½- —
dms., l.c.l., works lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., l.c.l., works lb. .31¾- —
tanks, dlvd. E lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, dlvd. E lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd lb. .22½- —
dms., l.c.l., dlvd lb. .23½- —
tanks, dlvd. E lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works lb. .27¼- —
dms., l.c.l., works lb. .28 - —
tanks, dlvd. E lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., dlvd lb. .22 - —
tanks, dlvd. E lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 - —
dms., l.c.l., dlvd. E lb. .45½- —
tanks, dlvd. E lb. .41½- —
Diethylstilbestrol, USP, bots., 10-kilo lots kilo. 100.00 -147.50
bots., 1-kilo lot kilo. 110.00 -152.50
Digitalis leaves, USP, dom., dms lb. 1.20 - —
Digitoxin, USP, bots. gram. 4.00 - 4.50
Diglycol laurate, dms. lb. .32¾- .34
Diglycol stearate, dms., ton lots lb. .26 - .28
Diglycolic acid, bgs., c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works lb. .16 - —
Dihexyl sebacate, dms., c.l., works. lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin hydrochloride, bulk gram. .03 - —
Dihydrostreptomycin sulfate, bulk. gram. .03 - —
1,2-Dihydroxy anthraquinone, dms., works lb. 2.75 - —
2,2-Dihydroxy-3-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
tech., dms. lb. 1.09 - —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd lb. .18½- —
tanks, dlvd. lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E lb. .31½- —
dms., l.c.l., same basis lb. .32½- —
tanks same basis lb. .29 - —
Di-isobutylene, dms., c.l., dlvd. E. lb. .10 - —
dms., l.c.l., dlvd. E lb. .11½- —
tanks, dlvd. E lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanktrucks, 1,000-1,999 gals. lb. .25½- —
tankcars, tanktrucks, 2,000 gals., lb. .25 - —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 - —
dms., l.c.l., works lb. .62½- .63
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. .48 - —
Dillseed, Indian, dewhiskered, bgs. lb. .13 - —
Dillseed oil, bots. lb. 2.80 - 5.00
Dillweed oil, dom., bots., dms lb. 3.10 - 4.10
Dimethyl anthranilate, cns. lb. 4.85 - 5.10
Dimethyl ethanolamines, anhyd., dms., c.l., dlvd lb. 1.225 - —
dms., l.c.l., dlvd. lb. 1.235 - —
tanks, dlvd. lb. 1.20 - —
70% dms. c.l., dlvd., 100% basis, contained amines lb. .68½- —
dms., l.c.l., dlvd., 100% basis lb. .69½- —
tanks, dlvd. 100% basis lb. .66 - —
Dimethyl hydroquinone, dms. lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .27½- —
dms., l.c.l., works lb. .29 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .25½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25 - —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 - —
dms., l.c.l., works lb. 1.30 - —
tanks, works lb. 1.28 - —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½- —
ret. dms., l.c.l., works lb. .18½- —
Dimethyl sulfide, dms., c.l., works. lb. .16½- —
dms., l.c.l. works lb. .17 - —
tanks, works lb. .15 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis. lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .38½- —
tanks, frt. equald, 100% basis. lb. .28 - —

PAILS and DRUMS

Vulcan offers a complete line of the finest quality pails and drums in all standard gauges. They are available with a variety of fittings and accessories. Vulcan will also recommend a HI-BAKE lining for your product or will work with you in developing a special lining. Whatever your *precise* steel container needs, Vulcan can fill them better and faster!

VULCAN PAILS. A complete line of pails in 1 through 12 gallon capacities, open and tight head.

VULCAN DRUMS. Available in 15, 30, 55 gallon and larger capacities with open or tight heads. Vulcan also makes Agitator, 120-110-100 lb. grease drums, and 14 and 16 gallon drums.

THE VULCAN "PACKETTE." Vulcan helps save pail shipping time and money with the "Packette" system . . . a low cost pail palletizing method that can save sizeable sums on a typical pail shipment. ("Packette" of 27 five gallon pails.)

VULCAN INTERLOCKING "UNI-DRUMS." A Vulcan exclusive! Unique interlocking design of 55 gallon drums allows either efficient loose shipment and storage or drums are securely held through all means of transport with strong steel strapping! ELIMINATES TRANSIT DAMAGE!

FAST SHIPMENT—The name "Vulcan" has become a byword for fast steel container delivery! You specify the pails and drums you need . . . quantities, sizes, gauges, interior lining, accessories . . . Vulcan will ship your order to you fast!

WRITE FOR MORE INFORMATION . . .

VULCAN CONTAINERS Inc.

Bellwood, Illinois (Chicago Suburb)
Chicago Phone: MAnsfield 6-7660
From Other Cities Phone: Linden 4-5000
In Canada: Toronto 15, Ontario &
New Westminster (Vancouver), B.C.

VULCAN CONTAINERS Inc., Dept. OPDR 29
Bellwood, Illinois
Gentlemen: I am interested in:
☐ Pails ☐ Drums ☐ "Packette" ☐ "Uni-Drums"
Name_____
Company_____
Address_____
City_____ Zone____ State_____

Dimethylamine—Ephedrine Hydrochloride

Dimethylamine, 40% soln., dms., c.l., frt. equald., 100% basis lb. .35 • —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, frt. equald, 100% basis. lb. .28 • —
N,N-Dimethylaniline, dms., c.l., frt. alld. lb. .30 • —
dms., l.c.l. frt. alld. lb. .31 • —
tanks, frt. alld. lb. .28 • —
N,N-Dimethylformamide, dms., works. lb. .34 • .39
tanks, works lb. .32 • —
2,4-Dinitroaniline, dms., frt. alld. lb. .75 • —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies. lb. 1.56 • —
Dinitroaniline orange toner prices 1c. higher W. of Rockies.
m-Dinitrobenzene, 65°C., dms. lb. .22 • —
89° C., dms. lb. .24 • —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .15¼- —
dms., l.c.l., frt. alld. E. lb. .15¾- —
tanks, frt. alld. E. lb. .15 • —
2,4-Dinitrochlorobenzene, crystallizing at 48°C., dms., c.l., frt. alld. E lb. .20¼- —
dms., l.c.l., frt. alld. E. lb. .20¾- —
tanks, frt. alld. E. lb. .20 • —
2,4-Dinitrophenol, bbls. lb. .37 • —
2,4-Dinitrotoluene, oily, dms. lb. .11 • —
Refd., 63°C., dms. lb. .23 • —

Dioctyl adipate, dms., c.l., works. lb. .42½- —
dms., l.c.l., works lb. .43½- —
tanks, works lb. .40 • —
Dioctyl phthalate, dms., c.l., frt. alld. lb. .27½- —
dms., l.c.l., frt. alld lb. .29 • —
tanktrucks, 1,000-1,999 gals., same basis lb. .25½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25 —
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works lb. .62¼- —
tanks, works, dlvd. lb. .59¼- —
1,4-Dioxane, dms., c.l. works lb. .30 • —
dms., l.c.l., works lb. .30¾- —
tanks, works lb. .28 • —
Dipentaerythritol, c.l., t.l., dlvd. E. lb. .38 • —
bgs., l.c.l., l.t.l., dlvd. E. lb. .39 • —
Dipentene, dest.-dist., dms., c.l., works gal. .59 • —
dms., l.c.l., works gal. .63 • —
dms., l.c.l., ex whse. gal. .79 • —
tankcars, works gal. .42 • —
Dipentene, steam dist., dms., c.l., works, South gal. .72 • —
dms., l.c.l., dlvd. New York gal. .91 • —
tanks, works, South gal. .55 • —
Dip oil (see Tar acid oil)
Diphenyl, bgs., c.l., t.l., works lb. .17¼- —
bgs., l.c.l., works lb. .19 • —
tanks, works lb. .16 • —
Diphenyl oxide, perfume grade, cns. lb. .65 • .85

Diphenyl phthalate, dms., c.l., works. lb. .51¼- —
dms., l.c.l., works lb. .53¾- —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald. lb. .33 • —
bgs., l.c.l., same basis lb. .35 • —
Diphenylamine, refd., fused, tanks, same basis lb. .30 • —
Refd. diphenylamine in dms. ½c. per lb. higher.
Diphenylguanidine, bgs., dms., ton lots, frt. alld. lb. .49 • —
bgs., smaller lots, frt. alld. lb. .50 • —
Diphenylhydantoin-sodium, USP, dms. lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld. lb. .17¾- —
dms., l.c.l., frt. alld. lb. .18¾- —
tanks, frt. alld. lb. .15¼- —
Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 • —
dms., l.c.l., same basis lb. .21 • —
tanks, same basis lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.45 • —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .69 • —
dms., smaller lots, frt. alld. lb. .70 • —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald lb. .20 • —
dms., l.c.l., same basis lb. .21 • —
tanks, same basis lb. .19 • —
50-60%, dms., c.l., works, 100% basis lb. 1.00 • —
dms., l.c.l., works, 100% basis lb. 1.05 • —
Dodecylbenzene, dms., c.l., f.o.b., works, frt. equald lb. .137 • —
dms., l.c.l., same basis lb. .147 • —
tanks, same basis lb. .114 • —

Dodecylphenol, c.l., frt. alld. lb. .22 • —
dms., l.c.l., same basis lb. .23 • —
tanks, same basis lb. .19½- —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb and 1-lb. lots, dlvd:
Blue, FD&C, No. 1 lb. 15.65 -17.60
No. 2 lb. 15.65 -17.60
Green, FD&C, No 1 lb. 15.65 -17.60
No. 2 lb. 19.60 -22.85
No. 3 lb. 31.30 -35.90
Red, FD&C, No. 1, cns. lb. 5.90 - 7.85
No. 2 lb. 3.30 - 4.10
No. 3 lb. 19.60 -22.85
No. 4 lb. 5.55 - 7.50
Violet, FD&C, No. 1, cns. lb. 15.65 -17.60
Yellow, FD&C, No. 1, cns. lb. 9.15 -11.03
No. 5 lb. 3.30 - 4.10
No. 6 lb. 3.30 - 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200 lb. and 1 lb. lots, dlvd:—
Black, D&C, No. 1 lb. 10.50 -10.95
Brown, D&C, No. 1 lb. 15.65 -16.10
Green, D&C, No. 5 lb. 15.65 -16.10
No. 6 lb. 15.65 -16.10
No. 7 lb. 14.35 -14.80
Orange, D&C, No. 3 lb. 10.50 -10.95
No. 4 lb. 19.60 -20.05
No. 5 lb. 3.80 - 4.25
Red, D&C, No. 17 lb. 10.50 -10.95
No. 18 lb. 23.60 -24.00
No. 19 lb. 15.00 -15.45
No. 21 lb. 3.90 - 4.35
No. 22 lb. 10.50 -10.95
No. 28 lb. 24.15 -24.65
No. 33 lb. 17.00 -17.45
Violet, D&C, No. 2 lb. 15.65 -16.10
Yellow, D&C, No. 7 lb. 10.50 -10.95
No. 8 lb. 10.50 -10.95
No. 10 lb. 13.05 -13.50
No. 11 lb. 13.05 -13.50
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb lots dlvd:—
Blue, Ext., D&C, No. 1, cns lb. 15.65 -16.10
Green, Ext., D&C, No. 1, cns lb. 15.65 -16.10
Red, Ext., D&C, No. 1, cns lb. 13.05 -13.50
Yellow, Ext., D&C, No. 1, cns lb. 10.50 -10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour index scale or prototype), contract, dlvd. No.
11110 Brilliant scarlet BN lb. 1.70 • —
13390 Fast blue SR lb. 1.30 • —
14025 Yellow 2G lb. 1.18 • —
14030 Orange R, extra, conc. lb. 1.52 • —
14645 Chrome black T lb. .73 • —
14720 Rubine XX, conc. lb. 1.47 • —
15510 Orange Y, extra conc. lb. .79 • —
15575 Orange RR lb. .94 • —
15620 Fast Red A, conc. lb. 1.53 • —
15705 Chrome blue black R, conc. lb. 1.07 • —
16150 Scarlet 2RL lb. 1.16 • —
16230 Fast light, orange 2G lb. 1.29 • —
16255 Brilliant scarlet 3RN, conc. lb. 1.20 • —
17590 Brown PG lb. 3.00 • —
17820 Diazo brilliant scarlet ROAD lb. 3.62 • —
18050 Phloxine 2G lb. 1.05 • —
18055 Fuchsine 6B lb. 1.55 • —
18965 Fast Yellow 2G lb. 2.32 • —
19140 Yellow XX lb. 2.30 • —
19555 Yellow NN, conc. lb. 3.67 • —
20170 Brown Y lb. 1.27 • —
20470 Blue black, extra, conc. lb. 1.37 • —
21010 Brown, RX, conc. lb. 1.35 • —
22240 Scarlet B lb. 2.60 • —
22310 Red FC lb. 1.45 • —
22311 Brown MCW lb. 1.40 • —
22590 Diazo black BHD lb. .93 • —
22610 Blue 2B, extra conc. lb. 1.53 • —
23500 Red, 4BX, conc. lb. 1.69 • —
24410 Sky blue FF, extra, conc. lb. 1.95 • —
24895 Brilliant yellow, conc. lb. 3.11 • —
26400 Navy blue 3R, conc. lb. 1.70 • —
26695 Black F, conc. lb. 2.19 • —
26900 Milling Red 3R, conc. lb. 1.91 • —
27075 Neutral black 2B, conc. lb. 2.61 • —
27720 Gray L lb. 2.08 • —
29185 Fast scarlet 4BNC lb. 2.12 • —
30015 Diazo black VJ conc. lb. 2.48 • —
30945 Yellow brown K, extra lb. 1.26 • —
30295 Green BY, conc. lb. 1.02 • —
35660 Brown B lb. 2.89 • —
37565 Naphthol SWF lb. 1.76 • —
40000 Yellow 2G lb. 1.31 • —
41000 Yellow OX lb. 2.45 • —
42000 Green V, crystals lb. 2.73 • —
42040 Brilliant green G crystals lb. 3.62 • —
42090 Blue EG lb. 1.85 • —
42100 Milling green 6B, conc. lb. 4.78 • —
42650 Violet 4BXN lb. 2.25 • —
43820 Brilliant blue BBG lb. 2.44 • —
44045 Blue B, extra conc. lb. 3.61 • —
45170 Red BX lb. 4.76 • —
50415 Nigrosine SSJ lb. 1.03 • —
52015 Blue GXX lb. 2.22 • —
53185 Black, GXCF, conc. lb. .38 • —
58005 Alizarin red SC lb. 3.31 • —
59700 Golden orange GFD, single paste lb. 2.58 • —
59710 Orange 6RD double powder, lb. 4.70 • —
59800 Dark blue BO, single paste lb. 2.28 • —
59825 Jade green NC supra, double paste lb. 1.55 • —
61570 Alizarin green CG, extra lb. 3.53 • —
63010 Alizarin blue SAPG lb. 3.78 • —
63615 Alizarin blue black B lb. 3.02 • —
69825 Blue BLFD double paste lb. 2.92 • —
70800 Brown BR single paste lb. 2.03 • —
Dyes, coaltar, oil-soluble, 100-lb. drums dlvd. No.
12140 Oil Scarlet BL lb. 1.70 • —
11160 Oil yellow T lb. 2.79 • —
12055 Oil orange 7078-V lb. 5.87 • —
26120 Oil red N-1700 lb. 1.76 • —
42535B Methyl violet base lb. 1.76 • —
44045B Victoria blue base lb. 4.06 • —
50415B Oil black 8603 lb. .80 • —
61565 Alizarin cyanine green base. lb. 6.13 • —
Dyes, coaltar, spirit soluble, 100-lb. dms., dlvd. No.
Spirit black RB lb. 3.54 • —
Spirit brown GN lb. 5.30 • —
Spirit orange R conc. lb. 5.87 • —
Spirit red B conc lb. 6.41 • —
Spirit yellow 2R conc. lb. 4.62 • —
12055 Spirit orange 7078-V lb. 1.25 • —
Spirit blue THN lb. 5.06 • —

E

Echinacea root, bls lb. 1.10 • —
Elm bark, grinding bls. lb. .30 • .32
Powd., bbls., bxs. lb. .45 • —
Select, bundles lb. .75 • —
Emetine hydrochloride, USP, bots. oz. 42.00 -48.25
Endrin, tech., dms., t.l., dlvd. lb. 3.44 • —
Eosin red toner, bbls., works lb. 1.85 • —
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots oz. .88 • 1.00
hydrous bots. 100-oz. lots oz. .93 • —
Ephedrine hydrochloride, NF, dms., oz. .80 • .85

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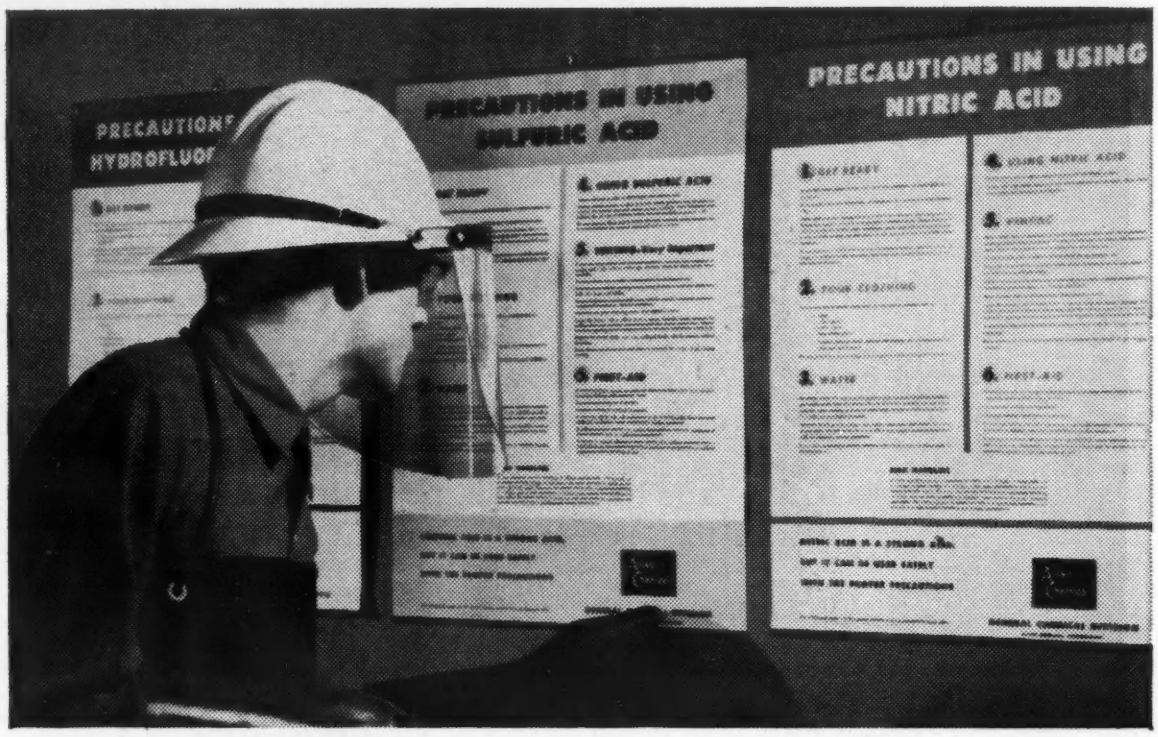

3 New Safety Posters on the Proper Handling of Strong Acids

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☐ Precautions In Using Hydrofluoric Acid
☐ Precautions In Using Nitric Acid

Name_____

Title_____

Company_____

Address_____

City_____ Zone____ State_____

Ephedrine sulfate, USP, cryst., dms., oz. .60 - .80
Powd., dms. oz. .60 - .80
Epichlorohydrin, dms., c.l., dlvd. lb. .32½ - —
dms., l.c.l., dlvd. lb. .34 - —
tanks, dlvd. lb. .30 - —
1-Epinephrine base, syn., USP, bots., 100 gram lots gram. .58 - —
Epsom salt (see Magnesium sulfate).
Erigeron oil, cns. lb. 11.00 - —
Ergot, NF, dms., tin-lined lb. 1.60 - —
Eserine salicylate, bots. oz. 72.50 - 84.00
Eserine sulfate, bots. oz. 87.75 - —
1-Epinephrine base, syn., USP bots.,
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va. lb. .17 - —
Ester gum, wood-rosin type, dms., c.l., same basis lb. .17 - —
Ether (see specific product)
Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd lb. .16½ - —
tanks, dlvd lb. .12½ - —
95-98%, dms., c.l., dlvd. lb. .15¼ - —
dms., l.c.l., dlvd lb. .16¾ - —
tanks, dlvd. lb. .12¾ - —
99%, dms., c.l., dlvd. lb. .15½ - —
dms., l.c.l., dlvd lb. .17 - —
tanks, dlvd. lb. .13 - —
Ethyl acetoacetate, syn., 85-88%, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½ - —
tanks, dlvd lb. .12½ - —
95-98%, dms., c.l., dlvd. lb. .15¼ - —
dms., l.c.l., dlvd lb. .16¾ - —
tanks, dlvd. lb. .12¾ - —
99% dms., c.l., dlvd. lb. .15½ - —
dms., l.c.l., dlvd lb. .17 - —
tanks, dlvd. lb. .13 - —
Ethyl acetoacetate, dms., c.l., dlvd. lb. .58½ - —
dms., l.c.l., dlvd. lb. .60 - —
tanks, dlvd. lb. .56 - —
Ethyl acrylate, dms., c.l., t.l., dlvd lb. .36 - —
dms., l.t.l., dlvd. lb. .37 - —
tanks, dlvd. lb. .34 - —
Ethyl alcohol, 190 pf., USP, tax paid dms., c.l., dlvd. E. of Rockies gal. 20.63 - —
dms., l.c.l., same basis gal. 20.68 - 20.74
tanks, same basis gal. 20.47 - —
USP, tax-free, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Ethyl alcohol, absolute, 200 pf., tax paid, dms., dlvd. E. of Rockies gal. 21.75 - —
dms., l.c.l., same basis gal. 21.80 - 21.86
tanks, same basis gal. 21.59 - —
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).
Ethyl aminobenzoate, USP (see Benzocaine).
Ethyl amyl ketone, dms., c.l., dlvd. lb. .20 - —
dms., l.c.l., same basis lb. .21¼ - —
tanks, same basis lb. .17½ - —
Ethyl benzoate, bots. lb. .90 - —
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E lb. .43 - —
dms., l.c.l., frt. alld. E lb. .45 - —
tanks, frt. alld. E. lb. .41 - —
2-Ethyl butyl alcohol, dms., c.l., works lb. .30 - —
dms., l.c.l., works lb. .30¾ - —
tanks, works lb. .28 - —
Ethyl butyl ketone, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., l.t.l., works lb. .36¾ - —
tanks, works lb. .34 - —
Ethyl butyrate, works lb. .90 - 1.00
Ethyl carbamate (see Urethane).
Ethyl cellulose, vis. 7 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .73 - —
bgs., smaller lots, frt. alld. E. lb. .75 - —
Ethyl cellulose, vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E. lb. .68 - —
bgs., smaller lots, frt. alld. E. lb. .70 - —
Ethyl chloride, tech., cyls., works. lb. .20 - .22
dms., works lb. .18 - .20
tanks, works lb. .10 - —
Ethyl cinnamate, cns. lb. 3.35 - 3.50
Ethyl ethanolamines, mixed, dms., c.l., dlvd. E lb. .43½ - —
dms., l.c.l., dlvd. E. lb. .44½ - —
tanks, dlvd. E. lb. .41½ - —
Ethyl ether, absolute, ACS, dms. lb. .27 - —
Anesthesia, USP, dealers, 1-lb. cns. lb. 1.01 - —
½-lb. cns. lb. 1.09 - —
¼-lb. cns. lb. 1.21 - —
Ethyl ether, indust., dms., c.l., dlvd. lb. .13½ - —
dms., l.c.l., dlvd E. lb. .15 - —
tanks, dlvd. E. lb. .11 - —
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E. lb. .37 - —
dms., l.c.l., l.t.l., dlvd. E. lb. .38½ - —
tanks, dlvd. E lb. 34½ - —
(2-Ethyl hexoic acid, 1c. higher W. of Rockies).
2-Ethylhexyl acrylate, c.l. or t.l., straight or mixed frt. alld. E. lb. .42½ - —
dms., l.t.l., same basis lb. .43½ - —
tanks, same basis lb. .40 - —
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
2-Ethylhexyl alcohol, dms. c.l., dlvd. lb. .23¾ - —
dms., l.c.l., dlvd. lb. .25¼ - —
tanks, dlvd. lb. .21¼ - —
Ethyl iodide, cbys., works lb. 3.30 - —
Ethyl methacrylate, dms., c.l., frt. equald. lb. .52 - —
dms., l.t.l. frt. equald. lb. .52½ - —
tanks, frt. equald. lb. .50 - —
Ethyl morphine hydrochloride, USP, bots. oz. 11.85 - —
Ethyl nitrite (see Nitrous ether).
Ethyl oenanthate, dms. lb. 1.20 - 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist. (see Tetraethyl orthosilicate).
Ethyl silicate, 40% available SiO_2, dms., c.l., dlvd. lb. .44½ - —
dms., l.c.l., dlvd. lb. .46 - —
tanks, dlvd. lb. .42 - —
N-Ethyl-a-naphthylamine, dms., works. lb. 1.02 - —
N-Ethyl-o-toluidide, bbls. lb. .88 - —
Ethylamine (see Mono-, Di-, or Tri-).
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 - —
dms., l.c.l., frt. alld. lb. .58 - —
tanks, frt. alld. lb. .55 - —
Ethylbenzene, 99%, dms., c.l. or t.l., frt. equald. lb. .13 - —
dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .12½ - —
2-Ethylbutyl alcohol, dms., c.l., works lb. .30 - —
dms., l.c.l., works lb. .30¾ - —
Ethylene, contract, ref'y. gate lb. .0475 - .0525
Ethylene dibromide, dms., c.l., frt. equald. lb. .30½ - —
dms., l.c.l. frt. equald. lb. .31½ - —
tanks, frt. equald. lb. .28½ - —
Ethylene dichloride, dms., c.l., dlvd. lb. .11¼ - —
dms., l.c.l., same basis lb. .13 - —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.

Ethylene glycol, indust., dms., c.l., dlvd. E. lb. .16 - —
dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .13½ - —
Ethylene glycol monobutyl ether, dms., c.l., dlvd. E lb. .22 - —
dms., l.c.l., dlvd. E. lb. .23 - —
tanks, dlvd E. lb. .19¼ - —
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E. lb. .22 - —
tanks, dlvd. E. lb. .18¼ - —
Ethylene glycol monoethyl ether, acetate, dms., c.l., dlvd. E lb. .19½ - —
dms., l.c.l., dlvd. E. lb. .20½ - —
tanks, dlvd. E. lb. .17 - —
Ethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E. lb. .22 - —
tanks, dlvd., E. lb. .18½ - —
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E lb. .29 - —
dms., l.c.l., dlvd. E. lb. .29¾ - —
tanks, dlvd. E. lb. .27 - —
Ethylene glycol monostearate, triple pressed, dms lb. .33 - .35
Ethylene oxide, dms. c.l., dlvd. E. lb. .21½ - —
dms., l.c.l., dlvd. E. lb. .24½ - —
tanks, dlvd. E. lb. .15½ - —
Ethylene trichloride (see Trichloroethylene)
Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis lb. .42 - —
dms., l.c.l., dlvd. E., 100% basis. lb. .43 - —
tanks, dlvd. E., 100% basis lb. .40 - —
Ethylvanillin, 100-lb. fib. dms., 500-lb. lots and over lb. 6.75 - —
Eucalyptol, USP, cns., dms lb. .95 - 1.40
Eucalyptus oil, NF, rectified, 70-75%, dms lb. .50 - .95
NF, rectified, 80-85%, dms. lb. .57 - .95

Eugenol, USP, dms lb. 1.65 - 2.25
Euphorbia herb, bls. lb. .15 - .17

F

F salt, paste, tech., dms., works lb. 2.30 - —
Feldspar, 140-200 mesh, bulk, c.l., works ton. 19.50 - —
Feldspar in bags $3 per ton higher
Fennel oil, sweet, USP, cns. lb. 2.75 - 2.95
Fennel seed, Argentine, bgs lb. .14 - —
French, light, bgs lb. .21 - —
Indian, light, bgs lb. .22½ - —
Rumanian, bgs. lb. .14 - —
Yugoslav, light, bgs lb. .20 - —
Fenugreek seed, Moroccan, bgs lb. .07½ - —
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.50 - —
dms l.c.l., works 100 lbs. 8.50 - —
Indust., cryst., bbls., c.l., works 100 lbs 5.25 - 6.75
bbls., l.c.l., works 100 lbs 5.75 - 7.25
Ferric chloride, 42°Be., photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald. 100% basis 100 lbs. 4.00 - —
USP, cryst., dms., works lb. .07½ - .09
Ferric citrate, gran., dms. lb. .86 - —
Ferric hypophosphite, NF, dms lb. 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms., frt. alld lb. .28¼ - —
Ferric oxalate, gran., dms. lb. .89 - .91
Ferric oxides (see iron oxides).

Ferric phosphate, NF, soluble gran. pearls, cs lb. .72 - .75
Ferric pyrophosphate, NF VII, soluble, gran., pearls, dms. lb. .79 - —
Ferric resinate, 6¾% Fe., dms., ton lots, frt. alld lb. .36½ - —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld. lb. .40 - .44
Ferric sulfate, partly hydrated, bgs., c.l. works ton. 35.25 - —
bgs., l.c.l., works ton. 36.25 - 42.25
bulk, c.l., works ton. 33.25 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 - .68
Green, pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½ - .29½
Ferric-potassium oxalate, fine gran., dms lb. .32½ - .34½
Ferric-sodium oxalate, fine gran., dms lb. .27½ - .29½
Ferrous gluconate, USP, dms. lb. .96 - —
Ferrous sulfate, gran., bgs., c.l., works ton. 34.50 - —
bgs., l.c.l., dlvd. Metropolitan area, 100 lbs. 3.35 - 4.23
Ferrous sulfate, gran., bbls., c.l., works ton. 40.00 - —
bulk, c.l., works ton. 27.00 - —
USP, cryst., bbls., dms. lb. .09½ - .10
Fir balsam, Canada, bbls. gal. 32.00 - 35.00
Oregon, bbls. gal. 3.75 - 4.00
Fir oil, Canada, cns. lb. 2.85 - 4.00

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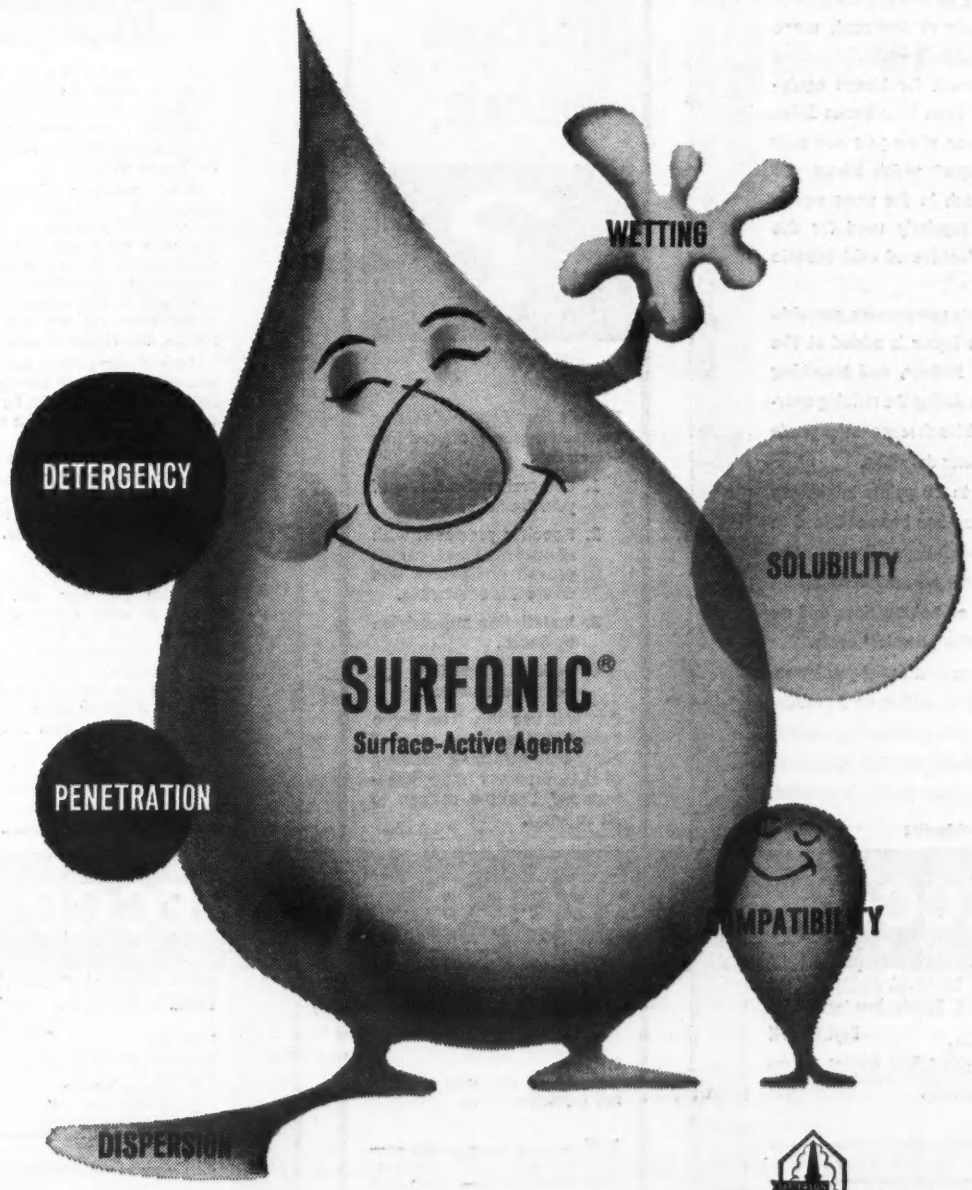
Jefferson Chemical Company's SURFONIC® surface-active agents are nonionic adducts of nonylphenol or tridecyl alcohol and ethylene oxide, designed to give you broad modification of liquid surface and interfacial tensions. With these surfactants you can effect and control a wide range of properties essential to formulation and to end product application.

Whatever your formulating problem — from concrete to cosmetics — Jefferson Chemical's versatile SURFONIC surface-active agents can give you the miscibility and wetting properties most favorable to your product or process. A comprehensive technical bulletin, "SURFONIC Surface-Active Agents," is available from Jefferson Chemical Company, 1121 Walker Avenue, Houston 2, Texas.



JEFFERSON CHEMICAL COMPANY, INC.

HOUSTON • NEW YORK • CHICAGO • CLEVELAND
CHARLOTTE • LOS ANGELES

Essential Chemicals From Hydrocarbon Sources

Ethylene Oxide, Glycols, Dichloride • Ethanolamines • Morpholine • Piperazine
Polyethylene Glycols • Nonyl Phenol • SURFONIC® Surface-Active Agents
Ethylene Carbonate and Propylene Carbonate • Caustic Potash • Caustic Soda
Soda Ash • Sodium Bicarbonate

Fish Oil—Guar Gum

Fish oil, refd., alkali, dms. lb. .1350- .1400
Kettle-bodied, dms. lb. .1580- .1630
Light-pressed, dms. lb. .1200- .1250
tanks lb. .1050- —
Fishliver oil, high potency, 100,000 A units per gram, dms. 1,000,000 units. .16 - —
200,000 A units per gram., dms. 1,000,000 units. .17½- —
800,000 A units per gram., dms., 1,000,000 units. .18 - —
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic coast ton.162.00 -164.00
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic coast ton.158.00 Nom.
Fleaseed (see Psyllium seed).
Folic acid, USP, bots., fib. dms., kilo or more gram. .44 - —
10% feed grade, fib. dms., 3 kilos or more kilo.44.00 - —
Formaldehyde, 37%, (inhibited 7 to 8% methanol), USP, dms., c.l., dlvd. lb. .0645- —
tanks, dlvd. lb. .0380- —
Formaldehyde, 37%, (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd. lb. .0670- —
tanks, dlvd. lb. .0405- —
Formaldehyde, methanol-free (uninhibited), tanks, dlvd. lb. .0350- —
Formic acid, 85%, cbys., c.l., works. lb. .1570- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., l.c.l., works lb. .1675- .1775
Fringetree bark, bls. lb. .60 - .61
Fuller's earth, bgs., c.l., Ill. mines, ton.19.00 - —
Fuller's earth, calcined, bgs., c.l., same basis ton.20.00 -21.75
Insecticide grade, dried, powd., bgs., c.l., Ga. or Fla. mines ton.17.50 - —
Oil-bleaching grade, 100-mesh, bgs., c.l., same basis ton.16.30 -17.00
200-mesh, bgs., c.l., same basis. ton.17.50 -18.00
Spent, bgs., c.l., ship't. point ton. 4.50 - 5.00
Fumaric acid, tech., bgs., dms., c.l., frt. alld. E lb. .27¼- —
bgs., l.c.l., same basis lb. .28¼- —
Prices of fumaric acid 1½c. per lb. higher west of Denver.
Furfural, dms., c.l., works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, dlvd. E. lb. .12 - —
tanks, dlvd. W. lb. .13 - —
Furfuryl alcohol, cns., works lb. .20 - —
dms., l.c.l., Memphis, Tenn. lb. .21 - —
tanks, Memphis, Tenn. lb. .184 - —
Furfuryl alcohol, dms., c.l., Newark, N. J. lb. .21½- —
dms., l.c.l., Newark, N. J. lb. .22½- —
Fusel oil, refd., dms., c.l., dlvd. lb. .18 - —
dms., l.c.l., dlvd lb. .19½- —
tanks, dlvd. lb. .15½- —

G

G salt, bbls., frt. alld., 100% basis lb. .73 - —
Gallic acid, NF VII, bbls., 1,000-lb. lots lb. 2.00 - —
bbls., smaller lots lb. 2.02 - 2.22
Gallic acid, tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb. 1.80 - 2.00
Gamma acid, dry grd., bbls., frt. alld. lb. 1.75 - —
Paste, bbls., frt. alld lb. 1.70 - —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. oz. 4.75 - 6.05
Imp., bots. oz. 4.50 - 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible, pure pork skin), 75 AOAC test, bbls., c.l. lb. .54 - —
150 AOAC test, bbls., c.l. lb. .65 - —
200 AOAC test, bbls., c.l. lb. .71 - —
225 AOAC test, bbls., c.l. lb. .74 - —
275 AOAC test, bbls., c.l. lb. .83 - —
Gelsemium root, bls. lb. .26 - —
Gentian root, bls. lb. .22 - —
Grd., bbls., bxs. lb. .27 - —
Powd., bbls., bxs. lb. .30 - .32
Geraniol, extra, cns., dms. lb. 1.90 - 3.00
Standard, cns., dms. lb. 2.05 - 3.40
soap grade, dms lb. 1.10 - 1.75
Geranium oil, Algerian, cns. lb.17.00 -18.50
Bourbon, cns. lb.18.00 -19.00
Geranium oil, Turkish (see Palmarosa oil).
Geranyl acetate, cns. lb. 2.00 - 2.70
Ginger oil, dist., bots. lb.10.50 -14.00
Ginger oleoresin, NF, from African root, bots lb. 5.00 - 5.60
NF, from Jamaican root, bottz. lb. 8.75 -10.25
Ginger root, Cochin, bgs. lb. .21 - —
Jamaican, No. 3, bgs. lb. .41 - —
Nigerian, split, bgs lb. .14 - —
Sierra Leone, bgs lb. .17½- —
Glauber's salt (see Sodium sulfate).
Gluconic acid, tech., 50%, dms., frt. alld lb. .18 - —
dms. l.c.l., frt. alld. lb. .20½- —
tanks, frt. alld. lb. .13½- —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs. c.l., dlvd. lb. .15 - —
131 jellygrams, bgs., c.l., same basis lb. .17 - —
164 jellygrams, bgs., c.l., same basis lb. .17½- —
191 jellygrams, bgs., c.l., same basis lb. .19 - —
222 jellygrams, bgs., c.l., same basis lb. .22 - —
Glue, bone, green, dry bone, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
65 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygrams, bgs., c.l., same basis lb. .16½- —
135 jellygrams, bgs., c.l., same basis lb. .17½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
180 jellygrams, bgs., c.l., same basis lb. .19½- —
200 jellygrams, bgs., c.l., same basis lb. .20½- —
Bone glue, l.c.l., prices 1c higher.
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd. lb. .16 - —
95-121, bgs., c.l., dlvd. lb. .17 - —
122-149, bgs., c.l., dlvd. lb. .18½- —
150-177, bgs., c.l., dlvd. lb. .21 - —
178-206, bgs., c.l., dlvd. lb. .23½- —
207-236, bgs., c.l., dlvd. lb. .26 - —
237-266, bgs., c.l., dlvd. lb. .28 - —
267-298, bgs., c.l., dlvd. lb. .30 - —
299-330, bgs., c.l., dlvd. lb. .32 - —
331-362, bgs., c.l., dlvd. lb. .34 - —
363-394, bgs., c.l., dlvd. lb. .36 - —
395-427, bgs., c.l., dlvd. lb. .38 - —
428-460, bgs., c.l., dlvd. lb. .40 - —
461-494, bgs., c.l., dlvd. lb. .42 - —
495-529, bgs., c.l., dlvd. lb. .44 - —
Hide glue, l.c.l., prices 2c higher.
1-Glutamic acid, 99½%, fib. dms., 100-lb lots, frt. alld lb. 1.80 - —
fib. dms., 25-lb. lots, frt. alld. lb. 1.85 - —
1-Glutamine, bots., 1-9 kilo lots, gram. .15 - —
Glycerine, dom., nat., crude, saponification, 88%, tanks, dlvd. E. lb. .18¾ Nom.
nat., crude, soaplye, 80%, tanks, dlvd. E lb. .17½ Nom.
Imp., nat., crude, soaplye, 80%, c.l.f lb. .17 Nom.
Glycerine, nat., refd., USP, CP, 99%, dms., c.l., dlvd lb. .29¾- —
dms., l.c.l., dlvd. lb. .29¾- —
tanks, dlvd. lb. .27¾- —
USP, 96%, dms., c.l., dlvd. lb. .28½- —
dms., l.c.l., dlvd. lb. .29 - —
tanks, dlvd. lb. .26¾- —
high gravity, dms., c.l., dlvd. lb. .29¼- —
dms., l.c.l., dlvd. lb. .29¾- —
tanks, dlvd. lb. .27½- —
syn., dms., c.l., dlvd. lb. .29½- —
dms., l.c.l., dlvd. lb. .30 - —
tanks, dlvd. lb. .27¾- —
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glycolic acid (see Hydroxyacetic acid).
Glyoxal, 30%, dms., c.l., works lb. .20½- —
dms., l.c.l., works lb. .21¼- —
tanks, works lb. .18 - —
Golden seal root, NF, tested, bls. lb. 3.50 - —
Grapefruit oil, dms. lb. 2.00 - 2.75
Graphite, amorp, powd., bgs., fib. dms., ex whse lb. .06 - .09¼
cryst., 88-90%, powd., bgs., fib. dms. ex whse lb. .19 - .21¼
90-92%, powd., bgs., fib. dms., ex whse lb. .21 - .24¼
93-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
Flake, No. 1, 90-85%, bgs., fib. dms., ex whse lb. .29 - .31
Flake, No. 2, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Grease, white, choice all nog, tanks, dlvd. lb. .07½- .07¾
Yellow, tanks, dlvd. lb. .06¾- .06½
Grease oil, No. 1, dms., c.l. lb. .15¾- —
dms., l.c.l. lb. .16¾- .18¾
extra winter, strained, dms., c.l. lb. .18¼- —
dms., l.c.l. lb. .19¼- .21¼
prime, burning, dms., c.l. lb. .19¾- —
dms., l.c.l. lb. .20¾- .22¾

Green Pigments

Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls. lb. .45 - —
Guaiacol, NF, cryst., dms., tips lb. 2.10 - 2.15
NF, liq., cbys., dms. lb. 2.30 - 2.40
Guaiacol carbonate, NF VII, dms. lb. 3.40 - 3.45
Guaiacwood oil, cns. lb. .75 - 1.30
Guar gum, food grade, bgs., c.l. lb. .33 - .44
bgs., 5,000 lbs. or more lb. .39 - .44
Tech. grade, bgs. lb. .30 - .33

Gums

Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

Which of these 3 products and services can you use from BECCO?

New Cold Caustic Bleach Process

Looking for a way to use greater amounts of low-cost, more plentiful pulp—without capital investment for bleach equipment? Then let a Becco Sales Engineer show you our new technique* which allows you to bleach in the same equipment regularly used for the manufacture of cold caustic pulp.

In this new process, peroxide bleach liquor is added at the Bauer Refiner, and bleaching occurs during the refining operation. Bleach response depends on refiner densities.

Up to 20 points brightness increase has been obtained in commercial operations to date, and with no additional steam costs, no holding time, and no excessive chemical costs.

Becco can assist you immediately in setting up a production run and evaluating results. First step: use the coupon to let us know you're interested.

*—Patent Pending

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Please have a Sales Engineer give me more information on Becco's Cold Caustic Bleach Process.

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Problems in handling Hydrogen Peroxide

?

Becco's Four-Fold Engineering Service Program—offered free—includes:

1. Comprehensive survey of your facilities.
2. Specific proposal with recommendation of proved equipment and where it is obtainable.
3. Installation supervision by Becco.
4. Periodic inspection and permanent service.

Can you use this free Becco help, based on more years of experience with bulk handling of H_2O_2 than any other manufacturer? Use the coupon to let us know.

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Dept. OPDR-B

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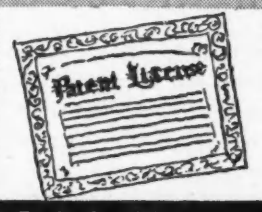
ZONE STATE



"Enclosing $1.00 — Send Patent License"

Well, perhaps there's a little more to your gaining use of Becco patents than just mailing your dollar in, but not much more. And certainly, no more money. The $1.00 really does cover it.

Becco has lots of patents, granted as a result of innovations in the use of Hydrogen Peroxide and other Peroxygen chemicals developed in Becco's Research Laboratories. But they don't do us a whole lot of good locked tightly in our safe. So, we long ago adopted the following policy:

If one of our patents can help you, we'll be glad to license the rights to you perpetually, for just one dollar. You get a nice certificate, incidentally, to cover the legalities, but more important—you also get free our complete engineering help in setting up your process, handling the material, maintenance, etc., etc.

What do we get? You as a customer—we hope—but there's no obligation on your part. Just seems to work out that way, though—when we know enough about a particular peroxygen to hold a patent on its use, chances are we've also learned enough to produce it purer than anyone else. You benefit from this; we do, too.

Use the coupon below to ask for a Sales Engineer—or our list of patents—that may help you solve an important problem.

BECCO fmc

BECCO CHEMICAL DIVISION, FMC
Station B, Buffalo, New York
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Gentlemen:
Please send your list of patents available on the use of
☐ Hydrogen Peroxide
☐ Peroxygen Chemicals
☐ Persulfate Chemicals
☐ Please have a Sales Engineer call.

NAME
FIRM
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ZONE STATE

Gypsum, plaster of Paris, 100-lb. paper bgs., trucks, dlvd. New York ton.20.30 - —
Gypsum, terra alba, dom., 100-lb. paper bgs., trucks, same basis. ton.20.00 - —
100-lb. paper bgs., trucks, works, New York ton.17.00 - —
Imp., English, 100-lb. paper bgs., ex dock, New York ton.55.00 - —
100-lb paper bgs., ex whse. ton.60.00 -62.00

H

H acid, dry, bbls., c.l., frt. alld., 100% basis lb. .90 - —
bbls., l.c.l., same basis .. lb. .95 - —
Hansa yellow 10 G, bbls., dlvd. E. of Rockies lb. 2.45 - —
Hansa G yellow, pigment, bbls lb. 2.20 - —
Hawthorn berries, bgs. ..... lb. .21 - —
Heliotropin, 100-lb. lots, dms. ... lb. 2.50 - 3.00
Hellebore root, dom., green, bls lb. .70 - .75
Helonias root, bls. ..... lb. 1.75 - 2.00
Hemlock oil, cns. ..... lb. 2.85 - 3.55
Henbane leaves, bls ..... lb. .33 - .40
Heptachlor, dms., c.l., t.l., 100% basis, frt. alld lb. .90 - —
Heptane, indust., tanks, Bayonne, N. J gal. .20 - —
tanks, Baytown, Tex. ..... gal. .16¼- —
tanks, Borger, Tex. ..... gal. .16¼- —
tanks, Houston, Tex. ..... gal. .16¼- —
Hesperidin, purif., 100-lb. fib. dms., f.o.b., works lb. 8.95 - —
Hesperidin methylchalcone, bots., 50-lb. lots, works lb.22.50 - —
bots., 5-lb lots, works..... lb.23.00 - —
bots., 1-lb lots, works..... lb.23.50 - —
Hexachlorophene, dms. ..... lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York lb. .233 - —
Hexamethylenetetramine, tech., bgs., 1,000-19,999-lb. lots, same basis. lb. .243 - —
bgs., smaller lots, same basis.lb. .253 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .250 - —
fib. dms., smaller lots, same basis lb. .253 - —
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York and Philadelphia lb. .42½- —
bgs., smaller lots, same basis lb. .43½- .43½
Hexane, indust., tanks, Bayonne, N. J gal. .20 - —
tanks, Borger, Tex., dlvd.. gal. .16 - —
tanks, Houston, Tex. ..... gal. .16 - —
1-Hexanol, dms., c.l., works..... lb. .35 - —
dms., l.c.l., works..... lb. .35¾- —
tanks, works ..... lb. .33 - —
Hexyl cinnamic aldehyde, dms lb. 4.00 - 7.50
n-Hexyl methacrylate, dms., c.l., works lb. .75½- —
dms., l.c.l., works ..... lb. .76 - —
Hexyl salicylate, dms. ..... lb. 1.75 - —
Hexylene glycol, dms., c.l., dlvd lb. .17½- —
dms., l.c.l., dlvd..... lb. .19 - —
tanks, dlvd. ..... lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd lb.14.00 - —
dms., smaller lots, dlvd. .. lb.14.50 - —
Homatropine hydrobromide, USP, bots oz. 3.00 - —
Homatropine methylbromide, USP, bots. oz. 3.90 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton. 6.75 - —
Horehound herb, bls. ..... lb. .16 - .19
Hydrastis (see Goldenseal).
Hydrazine hydrate, 85% ret. dms., works lb. 1.35 - 1.55
100%, ret. dms., works..... lb. 1.60 - 1.90
Hydriodic acid, 1.50 s.g., cbys. . lb. 2.92 - —
1.70 s.g. cbys. ..... lb. 3.23 - —
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd. zone 1 lb. .29¼- —
dms., l.c.l., dlvd. zone 1 lb. .29¾- .30¼
tanks, dlvd. zone 1..... lb. .27¼- —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.
Hydrobromic acid, medicinal, 48%, ... cbys., frt. equald lb. .48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride)
Hydrochloric acid, 18°, cbys., c.l., works 100 lbs. 2.50 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 2.90 - 3.05
tanks, works, frt. equald ton.28.00 - —
20°, cbys., c.l., works ...100 lbs. 2.75 - —
cbys., l.c.l., dlvd. Metropolitan area 100-lbs. 3.15 - —
tanks, works frt. equald.... ton.30.00 - —
Hydrochloric acid, 22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 3.65 - —
tanks, works frt. equald . ton.35.00 - —
Hydrochloric acid, CP, USP, consumers cbys. extra c.l. works lb. .15¾- —
cbys., l.c.l., same basis lb. .17¼- .17¾
Hydrochloric acid, 5-pint bots., extra cs., c.l., same basis lb. .20¾- —
Hydrocortisone acetate, bulk, bots., kilo lots or more..gram. 1.60 - 1.80
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 1.60 - 1.80
Hydrocyanic acid, dilute, NF, 2%, 5-lb. bots lb. .40 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 70%, 55-gal. dms., c.l., t.l., dlvd. 100 lbs.19.25 - —
55-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs.20.75 - —
30-gal. dms., c.l., t.l., dlvd. 100 lbs.21.00 - —
30-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs.22.50 - —
tanks, works, frt. equald. 100 lbs.15.50 - —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery.
Hydrofluosilicic acid, dms., works, 30% basis lb. .08 - —
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
50-lb. cyls., l.c.l., works..... lb. .55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works lb. .45 - —
Hydrogen cyanide, liq., 99%, tanks, works lb. .16 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .30½- .32½
cyls. dlvd. W. ..... lb. .39 - —
tanks, works..... lb. .21 - —
Hydrogen peroxide, 25%, dms., c.l., dlvd. lb. .203 - —
dms., l.c.l., dlvd. ..... lb. .211 - —
tanks, dlvd. ..... lb. .1800- —

Hydroquinone, photo grade, dms.lb. 1.10 - 1.13
Tech., dms., c.l., dlvd. ..... lb. .82½- —
dms., l.c.l., dlvd. ..... lb. .84½- —
Hydroxyacetic acid, tech., 70%, dms., Philadelphia and Chicago lb. .11 - —
tanks, Belle, W. Va. ..... lb. .073 - —
Hydroxycitronellal, cns. ..... lb. 4.00 - 4.80
Hydroxyethyl cellulose, low viscosity grades, 20,000-lb. lots or more, f.o.b. shipping point lb. .96 - —
2,000 to 19,999-lb. lots, same basis lb. .99 - —
150 to 1,999-lb. lots, same basis. lb. 1.02 - —
Less than 150-lb. lots, same basis lb. 1.12 - —
Hydroxyethyl cellulose, high viscosity grades, 20,000-lb. lots or more, more, f.o.b. shipping point lb. 1.01 - —
2,000 to 19,999-lb. lots, same basis lb. 1.04 - —
Hydroxyethyl cellulose, 85 to 1,999-lb. lots, same basis lb. 1.07 - —
Less than 85-lb. lots, same basis. lb. 1.17 - —
Hyoscine salts (see Scopolamine)
Hyoscyamine hydrobromide, bots.oz. 6.00 - 7.00
Hyoscyamine sulfate, bots. ..... oz. 6.00 - 6.50
Hypophosphorus acid, purif. 50% cbys., ton lots, f.o.b. works lb. .85 - —
NF, 30%, cbys., all quantities, same basis lb. .75 - —

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Ichthammol, NF, dms. ..... lb. .75 - 1.05
Indigo (see Dyes coaltar, 1171 indigo, syn).
Indole, CP, bots ..... lb.15.75 -16.25
Inositol, bots., dlvd. ..... lb. 5.00 - —
dms., dlvd. ..... lb. 4.50 - 4.75

Insect flowers (see Pyrethrum).
Iodine, crude, kgs. ..... lb. .95 - —
Resub., USP, dms..... lb. 2.00 - 2.03
Iodochlorohydroquinolin, USP, dms. lb. 3.60 - —
Iodoform, NF, dms., kgs. ..... lb. 4.90 - 5.00
a-Ionone, cns. ..... lb. 3.85 - 5.00
b-Ionone, cns. ..... lb. 3.85 - 5.85
Ipecac root, whole, bgs ..... lb. 8.00 - 8.50
Powd., bbls., bxs. ..... lb. 9.50 -10.00
Irish moss, bleached, prime, bls lb. .28 - .34
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .57 - —
bbls., l.c.l., ton lots, same basis. lb. .58 - —
bbls., smaller lots, same basis.lb. .59 - —
Iron blue, reg., dom., bbls., c.l., dlvd. E lb. .52 - —
bbls., l.c.l., ton lots, same basis. lb. .53 - —
bbls., smaller lots, same basis. lb. .54 - —
Iron blue, reg., imp., British, bbls., c.l., dlvd. E lb. .48 - —
bbls., l.c.l., ton lots same basis. lb. .49 - —
bbls., smaller lots, same basis.lb. .50 - —
Iron blue dlvd. prices 1c. higher for Pacific Coast states:—Wash., Ore., Cal., N. M., Ariz., Mon., Wyo., Utah, Col and Nev.
Iron compounds (see Ferric or Ferrous)

Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs., l.c.l., works..... lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works ..... lb. .14¼- —
Iron oxide, metallic, brown, bgs., works lb. .05¼- —
Iron oxide, Persian Gulf, red, bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, Easton, E. St. Louis, N. Y lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works lb. .08¼- —
bgs., l.c.l., works ..... lb. .08½- —
Iron oxide, Spanish red, bbls., c.l., ex dock lb. .05¾ Nom.
bbls., l.c.l., ex dock ..... lb. .06 Nom.
bbls., l.c.l., ex whse. New York. lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¼- —
Peruvian type, bgs., l.c.l lb. .023 - .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works lb. .12¼- —
Other shades, same basis lb. .12 - —
Isoamyl alcohol, dms., c.l., works, frt. alld. E lb. .27½- —
dms., l.c.l., same basis..... lb. .29 - —
tanks, same basis..... lb. .25 - —
Isoborneol, cns. ..... lb. 1.44 - 1.80
Isobornyl acetate, cns. ..... lb. .48 - .56
Isobornyl formate, dms. ..... lb. 1.20 - —
Isobornyl proprionate, dms. ..... lb. 1.25 - 1.35

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- LACTOSE U.S.P.
- LACTOSE U.S.P.—SPRAY PROCESS
- LACTOSE EDIBLE
- CRUDE MILK SUGAR
- LACTOSE FERMENTATION GRADE

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Appleton, Wisconsin

A world-wide supplier of high-quality milk derivatives

Isobutyl acetate, perfume grade, cns lb. .75 - 1.00
Solvent grade, dms., c.l., dlvd. E. of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd. lb. .16 - —
dms., l.c.l., dlvd lb. .17½- —
tanks, dlvd. lb. .13½- —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., dlvd. lb. .28½- —
Isobutyraldehyde, tech., dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23 - —
tanks, dlvd. lb. .19½- —
Isoeugenol, cns. lb. 3.55 - 3.75
Isoniazid, powd., kilo or more kilo. 18.00 - —
Isonicotinic acid, 100-lb. fib dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., l.c.l., dlvd. E lb. .25 - —
tanks, dlvd. E. lb. .21 - —
Isopentane, coml. grade, tanks, f.o.b. Tex. refy gal. .15½- —
Isophthalic acid, dms., c.l., works, frt. equald lb. .152 - —
dms., l.c.l., same basis lb. .162 - —
Isopropanol (see Isopropyl alcohol).
Isophorone, dms., c.l., works lb. .24½- —
dms., l.c.l., works lb. .25¼- —
tanks, works lb. .22½- —

Isopropyl acetate, dms., c.l., dlvd. lb. .14 - —
dms, l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd gal. .58 - —
dms., l.c.l., dlvd gal. .68 - —
tanks, dlvd. lb. .42 - —
95%, c.l., dms., dlvd. gal. .60 - —
dms., l.c.l., dlvd gal. .70 - —
tanks, dlvd. gal. .44 - —
Isopropyl alcohol, refd., anhyd., c.l., dlvd gal. .62 - —
dms., l.c.l., dlvd gal. .72 - —
tanks, dlvd. gal. .46 - —
Isopropyl benzene (see Cumene).
Isopropyl ether, dms., c.l., dlvd lb. .09½- —
dms., l.c.l., dlvd lb. .11 - —
tanks, dlvd. lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC), tech., dms., c.l., t.l., works lb 1.00 - —
dms., l.c.l., works lb. 1.05 - 1.25
tanks, works. lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works lb. .75 - —
450-lb fib. dms., l.c.l., works lb. .80 - .90
Isoquinoline, dms., works lb. .65 - 1.25
Itaconic acid, purif. fib. dms., c.l. works lb. .54 - —
fib. dms. l.c.l., works lb. .55 - —
Tech. fib. dms., c.l., works lb. .39 - —
fib dms., l.c.l., works lb. .40 - —

J

J acid, paste, bbls., works, 100% basis lb. 2.70 - —
Powd., bbls., same basis lb. 2.75 - —
Jalap root, NF, bls. lb. .85 - —
powd., bbls., bxs. lb. 1.00 - —
Japan wax, cs lb. .27 - .29
Juniper berries, bgs. lb. .15 - —
Juniper berry oil, bots. lb. 2.90 - 3.75
Twice rectified bots. lb. 3.60 - 7.00
Juniper tar oil, NF, dms lb. .42 - .60
Juniper wood oil, tecn. cns. lb. .38 - .55

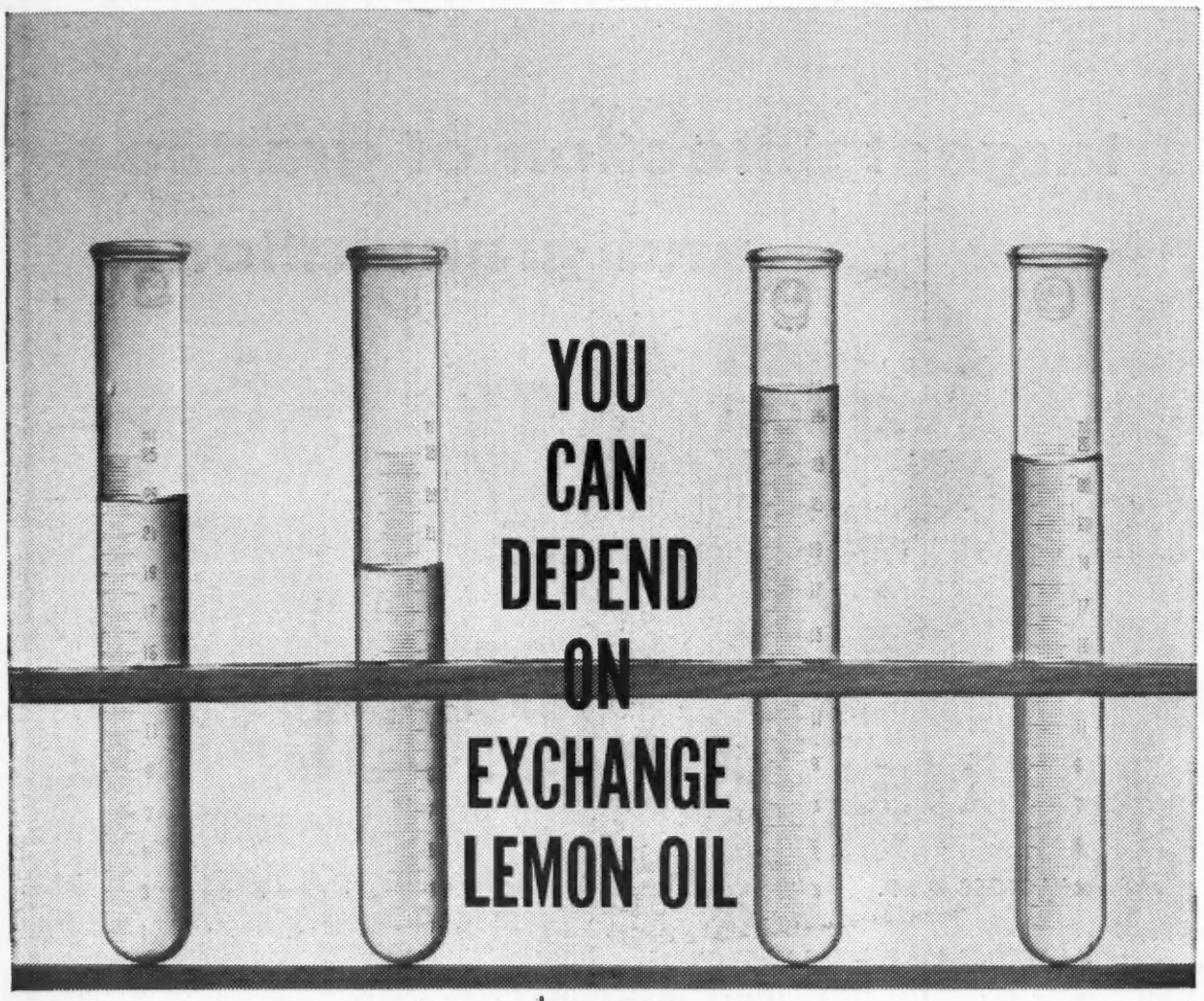
K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms. lb. .10 - .12
colloidal, 50-lb. bgs. lb. .15½- .17½
Karaya gum No. 1, NF, powd. bbls lb. .38 - .43
No. 2, powd., bbls. lb. .32 - .34
No. 3, powd., bbls. lb. .28 - .30
Koch acid, bbls., frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. lb. .13 - —

L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 150°-240° F b.r., tanks, west coast, ex tax, Los Angeles gal. .174 - —
Lacquer diluent, petroleum, 150°-240° F. b.r., tanks, east coast, N. J., N. Y gal. .20 - —
Lacquer diluent, benzene type, tanks, group 3 gal. .1550- —
Toluene type, tanks, group 3 gal. .14375- —
tanks, Houston, Tex. gal. .16 - —

Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald lb. .1789- .2740
bbls., dms., 20 or more, frt. equald lb. .1839- .2790
bbls., dms., 5 to 19, frt. equald. lb. .1889- .2840
bbls., dms., 1 to 4, frt. equald. lb. .1938- .2890
80%, c.l., bbls., dms., frt. equald lb. .3039- .4625
bbls., dms., 20 or more, frt. equald lb. .3089- .4675
bbls. dms. 5 to 19 frt. equald. lb. .3139- .4725
bbls., dms., 1 to 4 frt. equald. lb. .3189- .4775
Lactic acid, plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls., 5 to 19, works lb. .2840- —
bbls., 1 to 4, works lb. .2890- —
80%, bbls., c.l., works lb. .4625- —
bbls., 5 to 19, works lb. .4725- —
bbls., 1 to 4, works lb. .4775- —
Tech., 22%, bbls., c.l., works. 100 lbs. 6.80 - —
bbls., l.c.l., works 100 lbs. 7.20 - —
44%, bbls., c.l., works 100 lbs. 11.45 -12.70
bbls., l.c.l., works 100 lbs. 11.85 -13.10
USP, 85%, cbys. lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb. lots, frt. equald lb. .14½- —
bgs., 2,000-lb. lots, frt. equald lb. .14¾- —
bgs., 200-lb. lots, frt. equald lb. .15¼- —
Edible lactose in fib. dms., ½c. higher.
Lactose, ferment. grade, bgs., c.l., works lb. .08½- —
USP, fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
Lactose, ferment. grade, fib. dms., 200-1,800-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c. to 1c. lower.
Lactose, USP, spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs., l.t.l., frt. equald lb. .19 - .19¾
Lady's slipper root, bls. lb. 3.50 - 3.75
Lake C red toner, alizarine, bbls., works lb. 1.25 - —
Lamp black, bgs., c.l., works lb. .16 - .45
Lanolin, cosmetic, dms., works lb. .27 - .29
USP, anhyd., dms., works lb. .24 - .26
hydrous, dms., works lb. .23 - .25
Lard, cash, dms. lb. .0940- —
Lard oil (see Grease oil).
Larkspur seed, bgs. lb. .35 - —
Laurel leaf oil, dms., cns. lb. 9.75 -12.50
Laurent's acid, bbls. lb. .60 - —
Lauric acid, 90%, dms. lb. .35½- .38
tanks lb. .33¾- —
Lauryl alcohol, bots. lb. 2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l. works lb. .65½- —
dms., l.t.l., works lb. .66 - —
Lavandin oil, 22-24%, dms. lb. 1.25 - 2.00
Abrial, dms. lb. 1.00 - 1.50
Lavender flowers, medium, bls. lb. .75 - .80
Ord., bls. lb. .25 - .40
Select., bls. lb. 1.10 - —
Lavender flower oil, USP, French, 35-37% ester, cns lb. 3.50 - 9.50
40-42% ester, cns. lb. 5.00 - 9.00
Spike, Spanish, cns. lb. 2.30 - 2.85
Lead acetate, NF, cryst., gran., powd lb. .34½- —
White, cryst., bbls. lb. .25½- —
gran., bbls. lb. .26½- —
powd., bbls. lb. .26½- —
Lead arsenate, acid powder, dealers, 3-lb. bgs. or larger, any quantity, frt. alld. on $100 or more lb. .26½- —
1-lb. bgs., same basis lb. .36½- —
Lead, blue, basic sulfate, bbls., c.l., shipt point, frt. alld. lb. .17 - —
bbls., l.c.l., same basis lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, dms. lb. .52 - —
Lead iodide, NF V, jars lb. 3.82 - —
Lead linoleate, fused, 26% Pb. dms. lb. .38 - —
Lead metal, prime, pigs, New York. lb. .11½- —
St. Louis lb. .1130- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .143 - —
bgs., l.c.l., same basis lb. .153 - —
Lead naphthenate, liq., 16% Pb, dms., dlvd lb. .19½- —
24% Pb, dms., dlvd. lb. .24¼- —
Solid, 37% Pb, dms., dlvd. lb. .31¾- —
Lead nitrate, bbls. lb. .24¼- .26¾
Lead orthosilicate-gel, 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech. powd., bbls lb. .45 - .50
Lead phthalate, dibasic, dms., works, lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald. lb. .13¾- —
bbls., l.c.l., same basis lb. .14¾- —
97% Pb_3O_4, bbls., c.l., same basis, lb. .1395- —
bbls., l.c.l., same basis lb. .1495- —
98% Pb_3O_4, bbls., c.l., same basis, lb. .1410- —
bbls., l.c.l., same basis lb. .1510- —
Lead resinate, precip. 23% Pb, dms., ton lots, dlvd lb. .40¼- —
Lead salicylate, normal, dms., works, lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead, basic silico-chromate, bgs., c.l., f.o.b. mfg. point, frt. alld lb. .19¾- —
bgs., l.c.l., same basis lb. .20¾- —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms. lb. .15 - —
24% Pb, dms. lb. .21¼- —
Solid, 30% Pb, dms. lb. .23¼- —
Lead, white, basic carbonate, bgs., c.l., shipt. pt., frt. alld. lb. .17¾- —
bgs., l.c.l., same basis lb. .18¾- —
Lead, white, basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .16¼- —
bgs., l.c.l., same basis lb. .17¼- —
Lead, white, basic sulfate, bgs., c.l., shipt. pt., frt. alld. lb. .17 - —
bgs., l.c.l., same basis lb. .18 - —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
Lecithin, edible, tech., unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms., l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, fib. dms., 25-lb. lots, works lb. 9.00 - —
Lemon oil, USP, Calif., cns., dms. lb. 3.25 - 4.00
Messina, cns. lb. 4.50 - 9.50
Lemongrass oil, ens., dms. lb. .95 - 1.15
dl-Leucine, dms., works lb. 12.25 -15.00
Licorice root, gran., bls. lb. .15 - .17
Powd., bls. lb. .12 - .15
Whole, bls. lb. .10 - .13



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Lignaloe wood oil, Mexican, cns lb. 2.75 - 3.50
Lignosulfonate (see under ammonium or sodium lignin sulfonate).
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs., works, E. ton.14 25 - —
Chemical, hydrated, bgs., c.l., same basis ton.17 25 - —
Lime, chemical, spray bgs., c.l., same basis ton.18.25 - —
For New York delivery, add $9.29 freight charge.
Lime oil, dist., Mexican cns. lb 6.50 6.80
West Indian, cns lb 6.50 - 7.80
Expressed, West Indian cns lb 7.75 -13.70
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool, ex bois de rose oil, dms. lb. 3.80 4.30
Syn., 98-100%, dms., works lb. 3.70 - —
Linalyl acetate, ex bois de rose, 90-92%, dms lb. 4.20 - 4.90
96-98%, dms. lb. 4.75 - 5.60
Ex petitgrain, bots lb 4.80 5.90
Syn., 98-100%, dms., works lb. 3.70 - —
Lindane, 25% formulation to distributors dms., frt. alld lb. 1.35 - 1.50
Lindane, tech., to formulators, dms., 1-2,000 lbs., dlvd lb. 2.40 - —
Linden flowers, with leaves, bls lb. 25 - —
Without leaves, bls lb 30 - —
Linseed meal expeller, 32% bulk, Minneapolis, mills ton.76.00 - —
Extracted, 34% bulk, same basis, ton.75.00 - —
Linseed oil, raw, dms., c.l., New York lb. .1630- —
dms., l.c.l., New York lb. .1730- .1755
tanks, f.o.b. Minneapolis lb. .1280- —
tanks, New York lb. .1430- —
tankwagon, New York lb. .1480- .1490
Boiled linseed oil, .00½c. per lb. higher.
Linseed oil acids, dist., dms. lb. .1900- —
Water-white, dms. lb. .2230- —
Linseed pitch, dms. lb. .06 - .06¾
Litharge, coml., powd., bbls., c.l., works, frt. equald lb. .13¼- —
bbls., l.c.l., same basis lb. .14¼- —
Lithium aluminum hydride, lump, dms., works lb.33.00 -39.00
Lithium benzoate, dms. lb. 1.65 - 1.67
Lithium bromide, NF, gran., works, frt. equald lb. 2.60 - —
Lithium carbonate, NF, dms., c.l., t.l., dlvd lb. 1.29½- —
dms., ton lots to t.l., dlvd lb. 1.30 - 1.30½
Tech., dms., c.l., t.l., frt. alld lb. .67 - —
dms., ton lots, same basis lb. .73 - —
Lithium carbonate, tech., dms., smaller lots, same basis, lb. .79 - —
Lithium chloride, CP, anhyd., dms., ton lots lb. 1.23½- —
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld lb. .87 - —
dms., l.c.l., same basis lb. .88 - .93
Lithium citrate, NF, dms., ton lots, lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd lb. 2.15 - —
bbls., ton lots and more, dlvd. lb. 2.18½- —
bbls., less ton lots, dlvd. lb. 2.23½- —
Lithium hydride, powd., dms., 500-lb. lots or more, works lb. 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld lb. .72 - —
dms., l.c.l., frt. alld. lb. .73 - —
Lithium manganite dms., works lb. .95 - 1.05
Lithium nitrate, tech., dms., 100-lb. lots lb. 1.15 - 1.25
Lithium salicylate, dms. lb. 1.60 - 1.70
Lithium silicate, dms., works lb. 1.10 - 1.20
Lithium stearate, dms., c.l., works, lb. .47½- —
dms., ton lots, works lb. .48½- —
dms., less-ton lots, works lb. .53½- —
Lithium sulfate, dms., 100-lb. lots, lb. 1.15 - 1.25
Lithium titanate, dms., works lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. .98 - —
Lithol-rubine red toner, pure bbls., works lb. 1.50 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone, ord., bgs., c.l., dlvd. E. lb. .08½- —
bgs., l.c.l., dlvd. E. lb. .09½- —
Lithopone, titanated (high-strength), bgs., c.l., dlvd lb. .11 - —
bgs., l.c.l., dlvd. lb. .12 - —
Lobelia herb, bls lb. .55 - —
Lobeline sulfate, bots., works oz.37.50 -38.50
Locust bean gum, powd., bgs. lb. .38 - .39
Lycopodium, cs. lb. 4.00 - 4.50
l-Lysine monohydrochloride, fib. dms., 25 lbs. or more lb. 8.00 - —

M

Mace, Sinaw, No. 1, bls. lb. 2.25 - 2.30
No. 2 whole, bls. lb. 2.00 - —
siftings, bls. lb. 1.85 - —
Mace oil, dist., cns., dms. lb.12.75 -15.75
Magnesia, calcined, tech., bgs., cts., frt. equald lb. .25¼- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb. .28¼- .30
rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs., l.c.l., frt. equald lb. .28¾- —
Above prices are quoted f.o.b. works, freight equald, with Metropolitan New York and competitive producing points.
Magnesia, calcined, USP, light bgs. lb. .36½- .37½
heavy, fib. dms. lb. .45 - .53
Magnesite, chemical grade, calcined, powd. bgs., c.l., works, frt. equald ton.62.50 - —
Magnesite, chemical grade, dead-burnt, standard grain bulk c.l., Chawelah, Wash. ton.46.00 - —
Magnesium bromide, cs., jars lb. .95 - 1.00
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., t.l., frt. equald lb. .11½- —
bgs., l.c.l., frt. equald lb. .13½- .14
USP, bgs., c.l., frt. equald lb. .13½- —
bgs., t.l., frt. equald lb. .14 - —
bgs., l.c.l., frt. equald lb. .15 - .16
Above prices are quoted f.o.b. works, freight equald, with Metropolitan New York and competitive producing points.
Magnesium chloride, anhyd., 92% flake or pebble dms., c.l., works lb. .12¾- —
dms., l.c.l., works lb. .14 - .15
Magnesium chloride, hydrous, 99% flake, bgs., c.l., works ton.55.00 - —
bgs., l.c.l., works ton.65.00 -80.00
Magnesium gluconate, dms. lb. 1.43 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b., works lb. .24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld lb. .21 - —
dms., l.c.l., frt. alld. lb. .22 - —
tanks, frt. alld. lb. .20 - —
Magnesium metal, 99.8% ingots, 10,000-lb. lots or more, works lb. .36 - —
Magnesium metal, 99.8%, pigs, 10,000-lb. lots or more, works lb. .35½- —
Sticks, cs. works frt. alld. on carlots lb. .50 - —
Magnesium nitrate, cryst., dms., works lb. .13 - —
Magnesium oxide (see Magnesia, calcined).
Magnesium phosphate, tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works lb. .10½- .12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
bgs., l.c.l., works 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs, l.c.l., 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
bgs, smaller lots 100 lbs. 3.35 - —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb. .38 - —
fib dms., 1,000-lb lots lb. .40 - —
fib. dms., 100-lb lots lb. .45 - —
Bulky and super grades of magnesium trisicilate 7c. per lb. higher.
Malachite green, straight, PTMA, bbls. works lb. 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., l.c.l., works lb. .92 - 1.01
Maleic acid, cryst., powd., dms lb. .37¼- —
Maleic anhydride, dms., c.l., dlvd. E. of Rockies lb. .28¾- —
dms., l.c.l., dlvd. E. of Rockies lb. .29¾- —
tanks, dlvd E. of Rockies lb. .27¾- —
Prices on maleic anhydride W. of Rockies, 1½c. per lb. higher.
Malic acid, tech., dms. lb. .50 - —
Mandelic acid, NF, dms., 1,000-lb. lots lb. 2.35 - —
dms., smaller lots lb. 2.40 - 2.50
Mandrake root, bls. lb. .48 - .50
Manganese acetate, dms., dlvd. lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23¼- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works lb. .21¼- —
smaller lots, works lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton.148.00 - —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, paper bgs., same basis ton.144.50 - —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, dms. same basis ton.152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms. lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq., 4.35% Mn, dms lb. .35¼- —
Solid, precip., 8.2% Mn, bbls lb. .41¼- —
Manganese metal, electrolytic, dms., c.l., dlvd. E. lb. .34 - —
dms., ton lots, dlvd. E. lb. .39 - —
dms., smaller lots, dlvd. E. lb. .38 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .29¾- —
Manganese resinate, fused, 3½% Mn, dms lb. .25¼- —
Precip., 6½-7% Mn, dms lb. .33 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd S. E. ton 97.50 - —
bgs., l.c.l., dlvd. S. E. ton.104.50 - —
Manganese tallate, 6%, dms. lb. .28 - —
Manila copal gum, C, bgs. lb .35 - .39
DBB, bgs. lb .25 - .28
DK, bgs. lb No stocks.
DK, dust bgs. lb .14 Nom.
MA, soft, bgs. lb .20 - 24
WS, bgs. lb No stocks.
Mannitol, com'l, fib. dms., ton lots, works lb. .60 - —
fib. dms. to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 - —
Marine pitch, dms. lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .30 - —
bgs., l.c.l., works lb. .31 - —
Menadione, USP, bots. gram. .044 .05
Menhaden oil, crude, tanks, works, Atl. & Gulf lb. .07¾- —
Menthol, nat., USP, Brazilian, cs. lb. 5.00 - 5.25
Japanese, cs. lb. 7.00 - 7.18
Syn., USP, racemic, cns. lb. 4.50 - —

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ONE PRICE — *That Saves You Money*
. . . and Perfect Performance for *Every* Purpose!

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Unadulterated
California
LEMON OIL
U.S.P.

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MUTUAL CITRUS PRODUCTS COMPANY
Since 1928 Growers and Processers of Citrus Products

Distributed by

MUTUAL CITRUS PRODUCTS CO.
424 South Atchison Street, Anaheim, Calif.

R. D. WEBB & CO., INC.
137 Boston Post Road, Cos Cob, Conn.

2-Mercaptobenzothiazole—Mineral Oil

2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 • —
bgs., fib. dms. less ton lots, same basis lb. .46 • —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld lb. .54 • —
bgs., fib. dms., less ton lots, same basis lb. .56 • —
Mercuric chloride, NF, cryst., dms., 50-lb lots or more lb. 4.98 • —
gran. or powd., dms., 100-lb. lots or more lb. 4.78 • —
Mercuric cyanide NF VIII, powd., fib. dms lb. 6.84 • —
Mercuric iodide, red, NF X, fib. dms., lb 7.72 • —
Mercuric oxide, red, NF X, powd., 50-lb. lots or more lb. 5.97 • —
Tech., 100-lb. lots or more, works lb. 5.77 • —
Mercuric oxide, yellow, NF X, fib dms lb. 6.14 • —
tech., bbls., 1,000-lb. lots lb. 5.58 • —
bbls., smaller lots lb. 5.60 • —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, fib. dms lb. 7.72 • —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lbs. per flask, net flask 218.00 -223.00
Mesityl oxide, dms., c.l., dlvd. lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works lb. .57 • .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m- Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-tolylenediamine).
Methacrylic acid, glacial, 98%, dms., truckloads, works lb. .47 - —
dms., smaller lots, works lb. .47½- .80
tanks, works lb. .45 - —
Methanol, nat., denaturing grade, tanks, frt. alld gal. .83 - —
Syn., zone 1, dms., c.l. or t.l. min., dlvd gal. .47½- —
dms., l.c.l., dlvd. gal. .54½- —
tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area gal. .31 - —
tankwagon, 4,000 gal. min., dlvd gal. .26 - —
tankwagon, 4,000 gal. min., works gal. .25 - —
Zone 2, dms., c.l., or t.l., min. frt. alld. or dlvd. gal. .51½- —
dms., l.c.l., works gal. .58½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd., Metropolitan area gal. .35 - —
tanks, 4,000 gal. min., dlvd. gal. .30 - —

Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

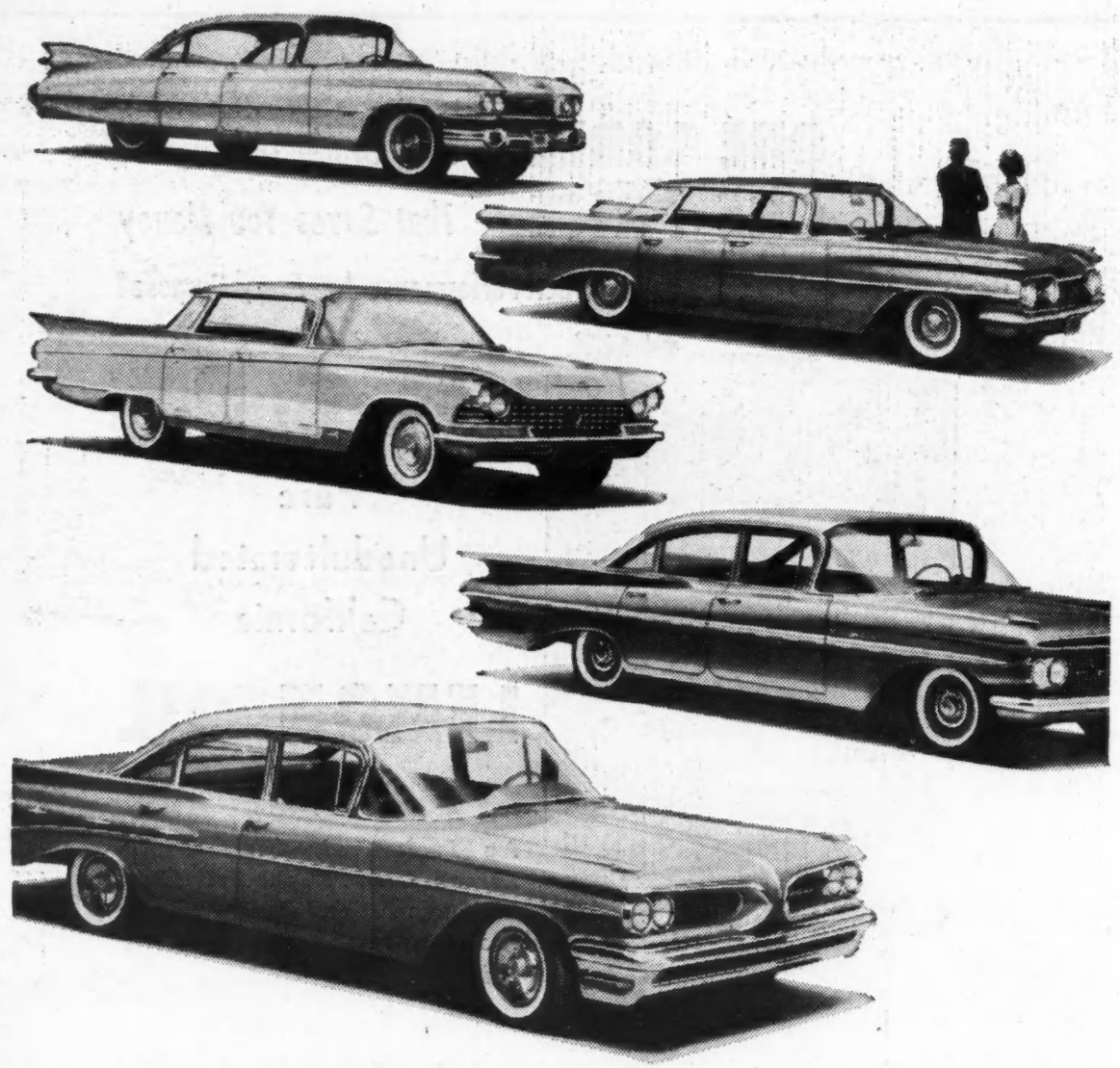
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb.21.75 • —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald lb.27.25 • —
Methenamine (see Hexamethylenetetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt. alld lb. 1.25 • —
dms., l.t.l., same basis lb. 1.29 • —
dl-Methionine, fib. dms., frt. alld., 50-lb. or more lb. 3.50 • —
Feed grade, 98%, fib. dms., same basis lb. 1.55 • —
Methoxychlor, 50% wettable powder, dealers, dms., cs., frt. alld lb. .66 - .70
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1 lb. .21½- —
non-ret. dms., l.c.l., same basis lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd. zone 1 lb. .23½- —
non-ret. dms., l.c.l., same basis, lb. .24 - 24½

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio., Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn., St. Louis, Mo., Miss., Ala., Ga., Fla., S. C. and Tenn.

Methyl acetone, nat., dms., t.c.l., E. of Miss., frt. alld gal. .62½- —
Syn., dms., c.l., frt. alld. E. gal. .66 - —
dms., l.c.l., frt. alld. E. gal. .76 - —
tanks, frt. alld. E. gal. .51 - —

Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.

Methyl acrylate, dms., c.l., t.l., dlvd. lb. .39 • —
dms., l.t.l., dlvd. lb. .40 • —
tanks, dlvd. lb. .37 • —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 • —
dms., l.c.l., dlvd. E. lb. .18½- —
tanks, dlvd. E. lb. .14½- —
Methylamyl alcohol, dms., c.l., dlvd. lb. .17 • —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Methylamyl ketone, dms., works lb. 1.05 • —
Methyl anthranilate, cns. lb 2.25 - 2.75
Methyl benzoate, cns., dms. lb. .65 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 - .65
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. 1.05 - —
Methyl cellulose, standard vis. (15,-400 cps.), 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .76 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. .79 - .89
Methyl chloride, indust., cyls., frt. equald lb. .22¼- —
tanks, multi-unit, same basis. lb. .16¼- —
tanks, single unit, same basis. lb. .12¾- —
Refrigerator mfrs., cyls., dlvd lb. .48¾- —
other consumers or service men, cyls., dlvd lb. .67¾- —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns. lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 - —
dms., l.c.l., works lb. .45¾- —
tanks, works lb. .43 - —
Methyl formate, refd., dms. lb. .35 - .40
Tech., non-ret. dms., any quantity, works lb. .10 - —
tanks, works lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 - —
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works lb. .21½- —
100-lb. multiwall paper bgs., l.t.l., works lb. .23 - —
Methyl heptin carbonate, bots lb.28.00 -31.00
Methyl p-hydroxybenzoate, fib. dms. lb. 1.90 - 2.00
Methyl ionone, standard, cns., dms. lb. 3.40 - 3.85
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., dlvd lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W Va. lb. .31 - —
dms., smaller lots, same basis lb. .31½- —
tanks, same basis lb. .29 - —
Methyl naphthyl ketone, cryst., cns lb. 3.00 - 4.30
Methyl parahydroxybenzoate (see Methyl p-Hydroxybenzoate).
Methyl parathion tech., 80%, dms., frt. alld. E lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms. lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼- —
dms., l.c.l., same basis lb. .62½- .67½
Methyl testosterone, USP, 100-gram bots gram. No Prices.
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb. 2.80 - —
Methyl violet toner, tungstated, PTMA, bbls., same basis. lb. 4.35 - —
Methyl violet prices 1c. higher W. of Rockies.
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted lb. 3.25 - —
Methylene chloride, tech., straight or assorted; dms., c.l., or t.l., dlvd. lb. .14 - —
dms., l.c.l., l.t.l., dlvd lb. .16¾- —
tanks, 4,000-gal. min., tank trucks, maximum load limit, dlvd lb. .12½- —
tanktrucks, 1,000-gal. min., dlvd lb. .13½- —
b-Methylnaphthalene, 32°C., m.p., dms., works lb. .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methylpyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs. c.l., works lb. .04 • —
roofing, 20 to 80 mesh, works lb. .03 • —
Mica, wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06½- —
bgs., l.c.l. ex-whse. lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E. lb. .08¼- —
bgs., l.c.l., ex-whse, or freight alld. E lb. .09 • —
rubber, bgs., c.l., works, frt. alld. E lb. .08 • —
bgs., l.c.l., ex-whse. or frt. alld. E lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld. E lb. .08¾- —
bgs. ex-whse. or frt. alld. E. lb. .09 • —
Mica, wet-grd., white, 5-10 microns, bgs., c.l., works, frt. alld. E. lb. .08¼- —
l.c.l., ex-whse., or frt. alld. E. lb. .09 • —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 - .11
Microcrystalline wax, petroleum, laminating grades, tankcars, works lb. .11 - .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy gal. .62 - —
non-ret. dms., l.c.l., same basis gal. .67 - —
tankcars, refy. gal. .46 - —
65-75 vis., non-ret. dms., c.l., same basis gal. .62 - —
tankcars, refy. gal. .46 - —
80-90 vis., non-ret. dms., c.l., same basis gal. .63 - —



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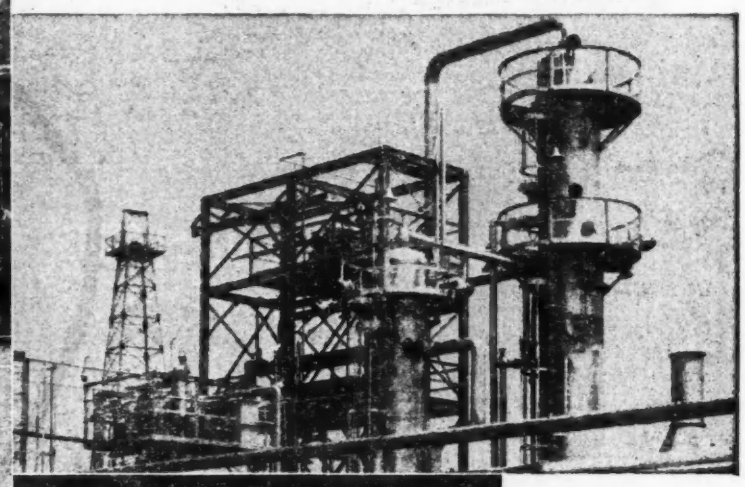
Mineral oil, white, tech., 80-90 vis., non-ret. dms., l.c.l., same basis gal. .68 - —
tankcars, refy. gal. .47 - —
135-136 vis., non-ret. dms., c.l., same basis gal. .69 - —
non-ret. dms., l.c.l., same basis gal. .74 - —
tankcars, refy. gal. .53 - —
145-153 vis., non-ret. dms., c.l., same basis gal. .75 - —
non-ret. dms., l.c.l., same basis gal. .80 - —
tankcars, refy. gal. .59 - —
USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .77 - —
non-ret. dms., l.c.l., same basis gal. .82 - —
tankcars, refy. gal. .61 - —
200-210 vis., non-ret. dms., c.l., non-ret. dms., l.c.l., same basis gal. .89 - —
tankcars, refy. gal. .63 - —
300-350 vis., non-ret. dms., c.l., f.o.b. New York gal. .84½- —
non-ret. dms., l.c.l., same basis gal. .89½- —
tankcars, refy. gal. .68½- —
Mineral orange, American, bbls., c.l., works lb. .1610- —
bbls., l.c.l., same basis lb. .1710- —
Mineral spirits, petroleum, odorless, tanks, refy. Watson, Calif. gal. .25 - —
tanks, Borger, Tex. gal. .23 - —
Houston, Tex. gal. .25 - —
Philadelphia gal. .32 - —
Newark gal. .29 - —
New York, dlvd. gal. .30½- —
Wood River, Ill. gal. .2725- —
tankwagon, New Jersey, dlvd. gal. .37½- —
tankwagon, New York, dlvd. gal. .38½- —
Mineral spirits, petroleum, regular, tanks, Calif., ex tax San Francisco gal. .169 - —
tanks, east coast, New Jersey, New York gal. .18 - —
tanks, group 3 gal. .12873- —
tanks, Houston, Tex. gal. .145 - —
tankwagon, Boston gal. .20 - —
Buffalo gal. .20½- —
Chicago gal. .289 - —
Cleveland gal. .23½- —
Newark gal. .19 - —
New York gal. .19 - —
Philadelphia gal. .19½- —
Pittsburgh gal. .19 - —
Providence gal. .20½- —
Mirbane oil (see Nitrobenzene)
MNPT maroon toner, kgs., c.l., works lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .12¾- .13
tanks, New York gal. .16 - —
Molybdated orange, bbls. lb. .48 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo. 7.84 - —
325 mesh, ctns., works kilo. 9.13 - —
Molybdenum trioxide, purif., dms., works lb. 1.15 - —
Tech., chemical, dms., works, basis Mo. content lb. 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.47 - —
Molybdic acid, 85%, dms., works. lb. 1.03 - 1.13
Monoallylamine, dms., c.l., dlvd lb. .963 - —
dms., c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., l.c.l., same basis lb. .59 - —
tanks, same basis lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .53 - —
dms., l.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E. lb. .10½- —
dms., l.c.l., same basis lb. .11½- —
tanks, same basis lb. .08¾- —
Monoethanolamine, dms., c.l., dlvd. E. lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoethylalphanaphthylamine (see N-Ethyl-a-naphthylamine).
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E. 100% basis lb. .38½- —
dms., l.c.l., dlvd. E., 100% basis, lb. .40 - —
tanks, dlvd. E., 100% basis lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., dlvd E. lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd. lb. .33½- —
dms., l.c.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 - —
tanks, same basis lb. .26 - —
30-35% soln., dms., c.l., frt. equald., 100% basis lb. .36 - —
dms., l.c.l., frt. equald., 100% basis lb. .36½- —
tanks, frt. equald., 100% basis, lb. .26 - —
Monomethylamine, 40% soln., dms., frt. equald, 100% basis lb. .33 - —
dms., l.c.l., frt. equald., 100% basis lb. .33½- —
tanks, frt. equald., 100% basis, lb. .26 - —
Monopentaerythritol, tech., bgs., c.l., dlvd. E lb. .30 - —
bgs., l.c.l., dlvd. E. lb. .31 - —
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld. lb. 3.05 - —
dms, 100-lb. lots, same basis lb. 3.25 - —
Monosodium glutamate, dms., any quantity, dlvd lb. 1.07 - —
Monosodium phosphate (see sodium phosphate, monobasic).
Mono-tertiary-butylmetacresol (see 6-tert-butyl-m-cresol).
Montan wax, dom., refd., bgs. lb. .29 - .30
Imp., crude, Bohemian, bgs. lb. .22 - .24
German, bgs. lb. .26 - .27
Morphine, cns. oz. 12.40 -12.60
Morphine acetate, anhyd., cns. oz. 9.95 -10.00
Morphine hydrobromide, cns. oz. 9.90 - 9.95
Morphine hydrochloride, NF, cns oz. 9.90 - 9.95
Morphine sulfate, USP, cns. oz. 9.90 -10.05
Morpholine, dms., c.l., dlvd. E. lb. .55¼- —
dms., l.c.l., dlvd. E. lb. .56¼- —
tanks, dlvd. E. lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots lb. 4.40 - 4.90
cns., 25-lb. lots lb. 4.50 - 5.00
Ketone, fib. dms., 100-lb. lots lb. 4.60 - 5.10
cns., 25-lb. lots lb. 4.70 - 5.20
Xylol, fib. dms., 100-lb. lots lb. 1.40 - —
cns., 25-lb. lots lb. 1.45 - —
Mustard seed, Danish, yellow, bags. lb. .11¼- —
Montana, yellows, bgs. lb. .11 - —
Oriental, bgs. lb. .06¾- .08
Mustard oil, syn. bots. lb. 1.60 - 1.85
Myristic acid, bgs. lb. .27 - .29½
tanks lb. .26½- —
Myrrh gum, cs. lb. .50 - .55

N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, 225°-300°F., b.r., tanks, west coast, Los Angeles gal. .174 - —
Portland, Ore. gal. .18 - —
San Francisco gal. .179 - —
Seattle, Wash. gal. .18 - —
east coast, New Jersey and New York gal. .19 - —
group 3 gal. .13673 —
Naphtha, VM&P, petroleum, tankwagon, Boston gal. .21½- —
Chicago gal. .209 - —
Cleveland gal. .24½- —
Houston, Tex. gal. .15½- —
Newark gal. .20½- —
New York gal. .20½- —
Philadelphia gal. .21½- —
Pittsburgh gal. .20 - —
Naphthalene, crude, dom., 74°, tanks, frt. equald. lb. .04¼- —
78°, tanks, same basis lb. .05 - —
Imp., 78°, bgs., large lots lb. .04¾- .05
Naphthalene, refd., indust., chipped, crushed, bgs., frt. equald. lb. .12½- —
tanks, same basis lb. .09¾- —
Refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis lb. .15½- —
cs., 50 lbs., c.l., same basis. lb. .15¾- —
1-lb. pkgs., c.l., same basis. lb. .18½- —
a-Naphthol, bbls., frt. alld lb. 1.00 - —
b-Naphthol, tech., flake, bbls., c.l., works lb. .33 - —
bbls., l.c.l., works lb. .35 - —
Naphthol, ITR, red toner, bbls., works lb. 5.50 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).
1-Naphthol-4 sulfonic acid (see Nevile and Winther's acid).
1-Naphthol-5-sulfonic acid (see L acid).
1-Naphthol-5-sulfonic 8-amino acid (see S acid).
2-Naphthol-6,8-disulfonic acid (see Gamma acid)
Naphthol sulfonic mixed acid (see Cleve's acid).
a-Naphthylamine, bbls. frt. alld lb. .50 - —
b-Naphthylamine, tech. flake, bbls., works lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid).
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).
2-Naphthylamine-7-sulfonic acid (see F acid).
Naringin, fib. dms lb. 6.50 - —
Neatsfoot oil, 15° cold test, dms lb. .30 - .33
20° cold test, dms lb. .29 - .32
30° cold test, dms lb. .28 - .31
Neocinchophen, USP, dms., frt. adjusted lb. 7.00 8.00
Neomycin sulfate, fib. dms., 1-kilo basis activity gram .25 - —
fib. dms., 100-999-gram lots, basis activity gram .30 - —
Neroli oil, NF, French, bots. lb. 425.00 -575.00
Tunisian, bots. lb 400.00 —
Nerolin, cns. lb. 2.55 2.85
Nevile and Winther's acid, dms., frt. alld lb. 1.30 - —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd lb. .68½- .73½
Nickel carbonate, bbls., dlvd lb. .78¼- .83¼
Nickel chloride, bbls. dlvd lb. .37 - .45
Nickel formate, bbls., ton lots, frt. alld lb. 72 - .73
Nickel metal electro cathodes, cs., works lb. .74 - —
Nickel nitrate, bbls., works lb. .32½- .33½
Nickel oxide, black, bbls lb. .85 - —
Green, bbls. lb. .84 - —
Nickel sulfate, bgs., c.l., dlvd lb. .28 - —
bgs., l.c.l., dlvd lb. .28½- .36
Nicotinamide, USP, dms., frt. adjusted kilo. 9.50 9.80
Nicotinamide hydrochloride, dms., frt. adjusted kilo. 9.50 9.80
Nicotine sulfate, 40%, dealers, 50-lb. dms. frt. alld lb. 1.20 - —
40%, manufacturers, 500-lb. dms., frt. alld lb. 1.05 - —



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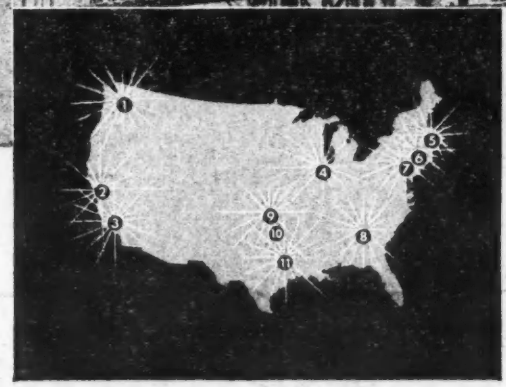

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AP-58-48

Nicotinic acid, USP, dms., dlvd	kilo.	6.00	—
Nicotinic amide, USP (see Nicotinamide).			
Niger seed, bgs	lb.	.10¼-	—
Nikethamide, cbys.	lb.	5.00	—
Nitric acid, 36° Be., cbys., c.l., works E	100 lbs.	5.75	—
cbys., l.c.l., works E	100 lbs.	6.05	6.85
38° Be., cbys., c.l. works, E.	100 lbs.	6.25	—
cbys., l.c.l., works E.	100 lbs.	6.55	7.35
40° Be., cbys., c.l., works, E.	100 lbs.	6.75	—
cbys., l.c.l., works, E.	100 lbs.	7.05	7.85
42° Be. cbys., c.l., works, E.	100 lbs.	7.25	—
cbys., l.c.l. works, E	100 lbs.	7.55	8.35
Nitric acid, 58.5 to 68% HNO_3, tanks, works, 100% basis	100 lbs.	3.90	—
94½ to 95½% HNO_3, tanks, works, 100% basis	100 lbs.	4.90	—
Nitric acid, CP, NF, consumer, cbys. extra, c.l., works	lb.	.18½-	—
cbys. extra, l.c.l., works.	lb.	.20	—
5-pint bots., extra, cs., c.l., same basis	lb.	.22½-	—
5-pint bots., extra, cs., l.c.l., same basis	lb.	.24	.25
m-Nitroaniline, cryst., dms., frt. alld	lb.	1.15	—
Paste, dms., frt. alld., 100% basis.	lb.	1.10	—
o-Nitroaniline, flaked, dms., t.l., frt. alld	lb.	.49	—
dms., l.t.l., frt. alld	lb.	.51	—
o-Nitroaniline orange toner, kegs,	lb.	1.35	—
p Nitroaniline, dms. frt. alld	lb.	.445	—
Nitrobenzene, dbl. dist., dms., c.l., frt. alld	lb.	.13	—
dms., l.c.l., frt. alld	lb.	.14	—
tanks, frt. alld	lb.	.11	—
p-Nitrobenzoic acid, dms., c.l., works	lb.	.63	—
dms., l.c.l., works	lb.	.64	—
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works	lb.	.37½-	—
bbls., l.c.l., same basis	lb.	.33½-	.40½
Ester-soluble, 18-20 cps., bbls., c.l., same basis	lb.	.39½-	—
bbls., l.c.l., same basis	lb.	.40½-	.42½
Ester-soluble, 250-400, 600-1,000 seconds, bbls., l.c.l., same basis	lb.	.43	.46
Spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis	lb.	.43	—
bbls., l.c.l., same basis	lb.	.44	.46
5-6 cps., 40-60 seconds, bbls., c.l. same basis	lb.	.42	—
bbls., l.c.l., same basis	lb.	.43	.45

Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.

o-Nitrochlorobenzene, dms., c.l., frt. alld	lb.	.15	—
dms., l.c.l., same basis	lb.	.16	—
tanks, same basis	lb.	.13	—
p-Nitrochlorobenzene, dms.	lb.	.26	.27
Nitroethane, dms., c.l., dlvd. E	lb.	.25	—
dms., l.c.l., dlvd E	lb.	.26½-	—
tanks, dlvd. E	lb.	.22½-	—

Nitroethane prices West of Rockies are 1c. higher.

Nitrogen solutions, tanks, frt. equald	unit.	1.20	—
Nitrogenous process tankage, bulk, works	unit-ton.	4.00	Nom.
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works	unit-ton.	3.10	.50
Nitromethane, dms., t.l., dlvd. E	lb.	.25	—
dms., l.t.l., dlvd E	lb.	.26½-	—

Nitromethane prices West of Rockies are 1c. higher.

a-Nitronaphthalene, bbls., frt. alld.	lb.	.31	—
o-Nitrophenol, dms., works, frt. equald	lb.	.94	—
p-Nitrophenol, dms., c.l., frt. alld.	lb.	.45	—
dms., l.c.l., frt. alld	lb.	.47	—
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies	lb.	.23½-	—
dms., l.c.l., same basis	lb.	.25	—
tanks, same basis	lb.	.21	—
2-Nitropropane, dms., c.l., frt. alld. E. of Rockies	lb.	.18½-	—
dms., l.c.l., same basis	lb.	.20	—
tanks, same basis	lb.	.16	—

Nitropropane prices West of Rockies are 1c. per lb. higher.

o-Nitrotoluene, dms., c.l., frt. alld.	lb.	.15	—
dms., l.c.l., frt. alld.	lb.	.16	—
tanks, frt. alld.	lb.	.13	—
p-Nitrotoluene, tech., cast, tanks, works	lb.	.26½-	—
c.l., t.l., dms., same basis	lb.	.27½-	—
l.c.l., dms., same basis	lb.	.28	—
p-Nitrotoluene, tech., flake, c.l., t.l., works	lb.	.27½-	—
l.c.l., dms., same basis	lb.	.28	—
m-Nitro-p-toluidine, dms.	lb.	1.25	—
Nonylphenol, dms., c.l., frt. alld.	lb.	.22	—
dms., l.c.l., frt. alld	lb.	.23	—
tanks, frt. alld	lb.	.19½-	—

Nonylphenol prices on shipments to Western States are 2c. higher.

Nutmegs, East Indian, whole, bgs.	lb.	1.75	—
West Indian, bgs.	lb.	1.65	—
Nutmeg oil, USP, dist., East Indian, cns	lb.	11.25	15.75
West Indian, cns	lb.	11.25	15.75
Nux vomica, bls	lb.	.12	—
Powd., bbls., bxs	lb.	.18	—

O

Ocher (see Iron oxide yellow, nat.).			
Ocotea cymbarum oil, dms.	lb.	.37	.65
Octane, indust., tanks, Bayonne, N.J	gal.	.20	—
Borger, Tex.	gal.	.15¾-	—
1-Octanol, tech., dms., c.l., dlvd., Zone 1	lb.	.41½-	—
dms., l.c.l., dlvd., Zone 1	lb.	.43½-	—
tanks, dlvd., Zone 1	lb.	.39	—
Octyl alcohol, perfumers' grade, bots	lb.	1.60	3.25
Octyl alcohol, tech, (see 1-Octanol, tech).			
Octyl phenol, bgs., c.l., works	lb.	.22	—
bgs., l.c.l., works	lb.	.22½-	—
tanks, works	lb.	.21	—

Octyl phenol in dms. 11c. higher.

Oils

Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms.	lb.	.19½-	.19¾
tanks	lb.	.18	—
Oleic acid, dbl.-dist. (white), dms.	lb.	.18½-	.21
tanks	lb.	.16	—
Single-dist., dms.	lb.	.17¼-	.19¾
tanks	lb.	.14¾-	—
Oleo oil, extra, dms.	lb.	.15½-	.15¾
Oleostearine, dms.	lb.	.14	.14¼
Oleum (see Sulfuric acid, fuming).			
Olibanum gum, siftings, cs	lb.	.20	Nom.
Tears, cs.	lb.	.22	.30
Olibanum oil, bots.	lb.	5.00	7.65
Extra fine, bots	lb.	8.00	9.50
Olive oil, edible, dms., spot, duty-paid	gal.	2.20	2.40
Olivine, crude, works	ton.	12.00	—
20 mesh, works	ton.	15.00	—
100 mesh, works	ton.	20.00	—
Opium, USP, cns	oz.	19.20	19.45
gran., cns.	oz.	21.65	21.90
powd., cns.	oz.	21.65	21.90
Orange oil, expressed, USP, Brazilian, cns., dms	lb.	No stocks.	
California, cns., dms.	lb.	1.25	1.50
Florida, cns., dms	lb.	.90	1.25
Messina, cns.	lb.	3.25	5.00
West Indian, bitter, cns., dms.	lb	3.35	3.85
Sweet, dist., cns., dms.	lb.	.70	—
Orange peel, bitter, Haitian, bls	lb.	.14	.16
Sweet	lb.	.30	.35

Orange Pigments

Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns	lb.	1.80	2.30
Orris root, Florentine, bls.	lb.	.55	—
powd., bbls., bxs.	lb.	.68	—
Verona, bls.	lb.	.35	.40
powd., bbls., bxs.	lb.	.44	—

Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid, (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol).
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).

Ouabain, USP, bots.	gram	3.00	4.00
Ouricury wax, crude, bgs	lb.	.78	Nom.
Refd., pure, bgs	lb.	.83	.88
Oxalic acid, bgs., dms., c.l., works.	lb.	.18	.18½
bgs., dms., 10,000-lb. lots, works.	lb.	.18¼-	.18¾
bgs., dms., smaller lots, works.	lb.	.19¼-	.19¾
b-Oxynaphthoic acid, fib dms., 250 lbs. or more, frt. alld.,	lb.	1.14	1.17
Oxyquinolin sulfate, cns., 100-lb. lots, works,	lb.	4.75	5.00
cns., smaller lots, works	lb.	4.92	5.17

P

Palm oil, clarif., dms.	lb.	.13½-	.14⅛
tanks	lb.	.1150-	—
Palm oil acid, dist., dms.	lb.	.15¾-	.19¼
tanks	lb.	.13¾-	.14¼
Palmarosa oil, cns	lb.	3.50	6.00
Papain, NF, powd	lb.	850	12.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots	oz.	5.00	—
cns., smaller lots	oz.	5.05	5.20
Papaverine sulfate, nat. or syn., USP, cns.,	oz.	7.10	7.35

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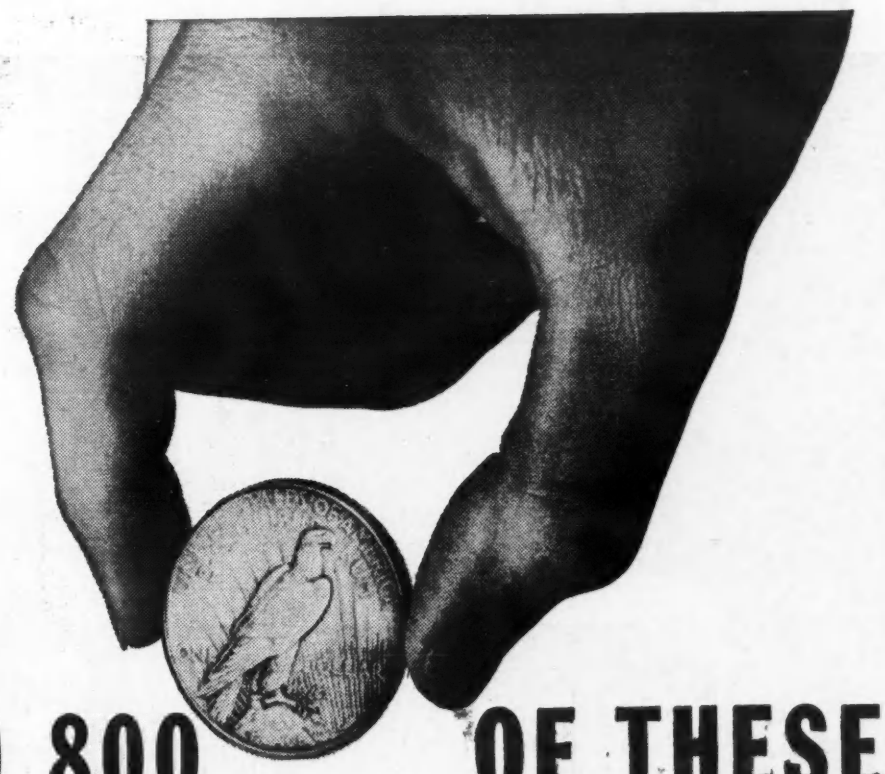
Hungarian, bgs. ..... lb. .37 - —
Spanish, bgs. ..... lb. .54 - —
Yugoslavian, bgs. ..... lb. .35 - —
Para-aminobenzoic acid (see p-Aminobenzoic acid)
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls. ..... lb. 1.21 —
Chlorinated, kgs. ..... lb. 1.35 —
Paraffin, crude, scale, white, 123°-127°F, ASTM, tanks, refy. lb. .0655- —
Paraffin, fully refd., 122°-124°F, ASTM, tanks, refy lb. .0765- —
125°-127°F, ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0785- —
132°-134°F., ASTM, tanks, refy. lb. .0765- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F. higher than ASTM.
Paraffin oil, pale, 100-110 vis. at 100°F., tanks, east coast refy gal. .14 —
Paraffin wax (see Paraffin).
Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld lb. .0955- —
bgs., l.c.l., frt. alld lb. .1155- .1255
91%, powd., bgs. c.l., ex whse lb. .167 - —
bgs., l.c.l. ex whse lb. .182 - —
USP-X, fib. dms., c.l. lb. .19 - —
fib. dms., 1,000-lb. lots lb. .20 - —
fib. dms., smaller lots lb. .21½ - —
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd lb. .14 - —
55-gal. dms., l.c.l., dlvd lb. .15 - —
tanks, dlvd lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene)
Paranitrotoluene (see p-Nitrotoluene.
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol)
Parathion, ethyl, dms., t.l., frt alld. lb. .84 - —
dms., l.t.l., frt. alld lb. .87 - —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Paris green, dealers, 100 lb. dms., frt. alld lb. .45 - —
Passion flower herb, bls. ..... lb. No stocks.
Patchouli oil, dms. ..... lb. 4.00 - 5.75
Peach kernel oil, USP (see Apricot kernel oil)
Peacock blue, fugitive, 100% color strength, 250-lb., bbls., dlvd. E. of Rockies lb. 1.00 - —
Peacock blue price 1c. higher W. of Rockies.
Peanut meal, 45%, old process, bgs., mills ton. 63.00 - —
Peanut oil, crude, tanks, f.o.b. mills. lb. .12 - —
Refd., dms. ..... lb. .17½- .17¾
tanks ..... lb. .15½- —
Pectin, dom., NF, citrus, powd., bbls. lb. 2.05 - 2.06
tech., powd., 150 jelly grade. lb. 1.28 - —
Imp., Danish, ex whse ..... lb. 1.28 - —
Penicillin potassium, cryst., bulk. 1,000,000 units. .035 - .040
Penicillin, procaine, bulk ..... 1,000,000 units. .035 - .040
Penicillin, sodium, bulk ..... 1,000,000 units. .0550- .060
Pennyroyal oil, USP, imported, cns. lb. 2.30 - 3.10
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald. lb. .21 - —
bgs., l.c.l., same basis ..... lb. .22½- .29
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd. lb. .29½- —
bgs., l.c.l., dlvd ..... lb. .30½- —
Pentaerythritol, di- and tri- isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 - —
Pepper, black, Malabar, bgs. ..... lb. .26 - —
black, Lampong, bgs. ..... lb. .25½- —
black, Sarawak, bgs. ..... lb. .25 - —
Pepper, red, Funtuas, bgs. ..... lb. .26 - —
Gondars, bgs. ..... lb. .28 - —
Japanese, Hontaka, bgs. ..... lb. .26 - —
Santaka, bgs. ..... lb. .25 - —
Sudanese, bgs. ..... lb. .36 - —
Zanzibar, bgs. ..... lb. .43 - —
white, Muntok, bgs. ..... lb. .42 - —
Peppermint leaves, dom., USP, bls., dms. lb. .70 - .75
Imp., USP., bls ..... lb. .85 - —
Peppermint oil, nat., dms. ..... lb. 3.90 - 4.60
Redist, USP, dms. ..... lb. 4.00 - 5.05
Perchloroethylene, dms., c.l. or t.l., dlvd. lb. .13½- —
dms., l.c.l., dlvd ..... lb. .15¼- —
tanks, dlvd. ..... lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd. lb. .12¼- —
Peri acid, dry, bbls., frt. alld. lb. 1.60 - —
Paste, bbls., frt. alld ..... lb. 1.55 - —
Peru balsam, dms. ..... lb. 1.50 - 1.95
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms. lb. 2.35 - 2.90
Petrolatum, cream, dms., c.l., refy. lb. .07¾- —
dms., l.c.l., dlvd ..... lb. .10¼- —
tanks, refy. ..... lb. .05½- —
Petrolatum, extra amber, dms., c.l., refy. lb. .06¾- —
dms., l.c.l. dlvd ..... lb. .09¼- —
tanks, refy. ..... lb. .04½- —
Lily white, dms., c.l., refy. lb. .08½- —
dms., l.c.l., dlvd ..... lb. .10½- —
tanks, refy. ..... lb. .05⅞- —
USP, snow white, dms., c.l., refy. lb. .08¾- —
Petrolatum, USP, snow white, dms., l.c.l., dlvd. lb. .11 - —
tanks, refy. ..... lb. .06¾- —
USP, soft yellow, dms., c.l., refy. lb. .06¾- —
dms., l.c.l., dlvd ..... lb. .09¼- —
tanks, refy. ..... lb. .04½- —
Petroleum pitch (see Asphalt, petroleum).

Petroleum Products

Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½- .19
tanks, works ..... lb. .14½- .17
50-55%, sulfonic content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., l.c.l., works lb. .17 - —
tanks, works ..... lb. .13 - —
o-Phenetidine, dms. c.l., frt. alld. E. lb. .91 - —
dms., l.c.l., same basis ..... lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.03 - —
dms., same basis ..... lb. 1.08 - —
Phenobarbitol, USP, dms., 100-lb. lots lb. 3.23 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E of Rockies lb. .17½- —
non-ret. dms., l.c.l., same basis. lb. .18½- —
tanks, same basis ..... lb. .15½- —
82-84% (cresol 16-18%), non-ret, dms., c.l., same basis lb. .17 - —
Phenol, 82-84% (cresol 16-18%), non-ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis ..... lb. .15 - —
39°C. or above, tar distilled, non-ret. dms., c.l., same basis lb. .19 - —
non-ret. dms., l.c.l., same basis. lb. .20 - —
tanks, same basis ..... lb. .17 - —
USP, syn., dms., c.l., t.l., frt. alld. lb. .19½- —
dms., same basis ..... lb. .21½- —
tanks, same basis ..... lb. .17½- —
Phenolphthalein, USP or yellow, fib. dms., 2,000-lb., lots lb. 1.30 - 1.32
fib. dms., smaller lots ..... lb. 1.32 - 1.37
Phenothiazine drench, fib. dms., t.l., dlvd lb. .44 - —
fib. dms., l.t.l., same basis lb. .47 - —
NF, fib. dms., t.l., same basis lb. .43 - —
fib. dms., l.t.l., same basis lb. .46 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol).
Phenylacetaldehyde, soln., 50%, bots. lb. 2.95 - —
100%, bots. ..... lb. 4.00 - 4.65
Phenylacetic acid, pure, cryst., ens. lb. 1.25 - 1.75
dl-Phenylalanine, dms. works lb. 27.00 - 37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib. dms. 200-lb. lots dlvd. E. lb. 3.45 - —
fib. dms., smaller lots, dlvd. E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E lb. .41 - —
dms., l.c.l., dlvd. E ..... lb. .42½- —
tanks, dlvd. E ..... lb. .38½- —
m-Phenylenediamine, dms., frt. alld. lb. 1.10 - —
o-Phenylenediamine, comi., 100 to 1,000 lbs., fib. dms., works lb. 1.70 - 1.80
p-Phenylenediamine, refd., dms., works lb. 1.42 - —
Tech., dms., works ..... lb. 1.40 - —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., l.c.l., same basis ..... lb. .77 - —
Phenylethyl acetate, bots. ..... lb. 1.30 - 1.60
2-Phenylethyl alcohol, extra, dms. lb. 1.14 - 1.50
Standard, dms. ..... lb. 1.10 - 1.60
b-Phenylethylamine, dms., 1,000-lb. lots, works lb. 1.10 - —
dms., smaller lots works ..... lb. 1.15 - 1.40
Phenylethylphenyl acetate, bots. lb. 4.00 - 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine, 97%, 450-lb. dms. lb. 1.43 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E. lb. 1.80 - —
fib, dms., smaller lots, dlvd. E. lb. 2.10 - —
o-Phenylphenol, dms., l.c.l., works. lb. .48 - .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works ..... lb. .43 - —
Philippine copal gum, pale, chips, bgs. lb. .23¾- .26
nubs, bgs. ..... lb. .33¼- .37
seeds, bgs. ..... lb. .20 Nom.
sorts, bgs. ..... lb. .22¾- .25



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Offices in Principal Cities

NAME _____ TITLE _____
COMPANY _____
STREET _____
CITY _____ ZONE _____ STATE _____

Phloroglucinol, coml., fib. dms., works lb. 6.40 - —
CP, bots., works lb.17.75 - —
Tech., fib. dms., works lb.10.45 - —
Phloxin red toner (see Eosin red toner).
Phosgene, ret. cyls., works lb. .15½- —
Phosphate defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports, New Orleans ton.48.00 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines. long-ton. 5.16 - —
68-70%, b.p.l., bulk, c.l., same basis long-ton. 5.56 - —
70-72%, b.p.l., bulk, c.l., same basis long-ton. 6.21 - —
74-75%, b.p.l., bulk, c.l., same basis long-ton. 7.21 - —
76-77%, b.p.l., c.l., bulk, same basis long-ton. 8.21 - —
Above Florida prices are based on fuel oil at $2.37 per bbl. and labor at $1.52.
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald 100 lbs. 7.00 - —
cbys., l.c.l., same basis, 100 lbs. 7.25 - 7.75
tanks, t.w., works 100 lbs. 5.60 - —
80%, cbys., c.l., frt. equald 100 lbs. 7.85 - —
cbys., l.c.l., works 100 lbs. 8.10 - 9.35
tanks, t.w., works 100 lbs. 6.00 - —

Phosphoric acid, NF, 85%, cbys., c.l., works 100 lbs. 8.50 - —
cbys., l.c.l., works 100 lbs. 8.75 - 9.00
tanks, t.w., works 100 lbs. 6.65 - —
Phosphorus, amorph., red, dms., t.l., works lb. .55 - —
dms., smaller lots, works lb. .56 - .57
Phosphorus, amorph., white (yellow), solid, dms., c.l., works, frt. equald lb. .20 - .20½
dms., l.c.l., works, frt. equald lb. .21½- —
tanks, works, frt. equald lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13½- —
dms., l.c.l., works lb. .14½- .15½
Solid, dms., c.l., works lb. .11½- —
dms., l.c.l., works lb. .12½- .13½
Phosphorus pentoxide, dms., c.l., works lb. .1395- .1430
dms., l.c.l., works lb. .1550- .1650
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 - —
dms., l.c.l., works lb. .39 - .40
Phosphorus trichloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald lb. .17 - —
bgs., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .16½- —

Phthalimide, 97-98%, dms., frt. alld lb. .69 - —
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies lb. 2.90 - —
Resinated, bbls., same basis lb. 2.75 - —
Water dispersable, bbls., same basis lb. 1.53 - —
Pythalocyanine blue prices 1c. higher W. of Rockies.
Phthalocyanine green toner, bbls., works lb. 3.35 - —
Resinated, bbls. lb. 3.00 - —
Water dispersable, bbls lb. 1.71 - —
Phthalocyanine green prices 1c. higher W. of Rockies.
Phthalylsulfacetamide, fib. dms., 1,000-lb. lots or more lb. 5.00 - —
NF, fib. dms. lb. 5.20 - —
a-Picoline, dms., c.l., works, frt. equald lb. .43 - .43½
dms., l.c.l., works, frt. equald lb. .44 - —
tanks, same basis lb. .415 - .422
b,g-Picoline, 5°C. dms., c.l., works. lb. .32½- —
dms., l.c.l., works lb. .33 - —
g-Picoline, tanks, f.o.b., works lb. 1.50 - —
dms., t.l., same basis lb. 1.60 - —
Picric acid, NF, bbls. lb. .85 - —
Tech, bbls. lb. .44 - —
Pigment green B, kgs. lb. 1.45 - —
Pilocarpine hydrochloride, USP bots oz. 4.75 - 5.25
Pilocarpine nitrate, USP, bots., vials. oz. 4.65 - 4.75
Pimento, Jamaican, bgs. lb. .65 - —
Mexican, bgs. lb. .49 - —
Pimento berry oil, NF, dms. lb. 3.75 - 9.25
Pimento leaf oil, cns. lb. 2.00 - 2.40
Pine oil, dest.-dist., dms., l.c.l. works lb. .15 - —
dms., l.c.l. ex whse. New York. lb. .173 - —

Pine oil, steam-dist., dms., ex whse. New York lb. .185 - —
dms., dlvd. lb. .188 - —
Pineneedle oil, Siberian (see Abies Siberica oil)
Pinetar oil, coml., dms., c.l., works. lb. .0561- —
dms., l.c.l., works lb. .0634- —
dms., c.l., ex whse. New York. lb. .0745- —
tanks, works lb. .046 - —
Pinetar oil, rectified, NF, dms., included, l.c.l., works, South lb. .40 - —
Pinetar oil, rectified, NF, dms., incl. l.c.l., ex whse., New York. lb. .41½- —
Refd., dms., incl., l.c.l., works lb. .35 - —
dms., incl. l.c.l., ex whse. New York lb. .36½- —
Pink root, bls. lb. 1.75 - —
Piperazine, anhyd., dms., t.l., frt. alld lb. 1.60 - —
dms., l.c.l., same basis lb. 1.65 - —
Piperazine citrate, 36%, dms., 1,000 lbs. or more, frt. alld lb. 1.04 - —
Piperazine dihydrochloride, 51%, dms., 1,000 lbs. or more, frt. alld lb. 1.12 - —
Piperazine hexanydrate, 44%, dms., 1,000 lbs. or more frt. alld lb. .77 - —
dms., t.t.l., same basis lb. .90 - —
Piperazine phosphate, 42%, dms., 1,000 lbs or more., frt. alld lb. .96 - —
Piperidine, dist., 98% min., dms., frt. equald lb 2.70 - —
Piperonyl butoxide, dms. dlvd E lb 4.50 5 05

Pitches

Pitch quotations are listed individually. For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Plaster of Paris (see Gypsum).
Platinum metal, works oz.51.00 -55.00
Pleurisy root, bls. lb .45 - .50
Podophyllum resin, NF, dms. lb.15.60 -16 10
Poke root, bls lb .19 - .22
Polymyxin, bulk, bots., 50 billion units or more 1,000,000 units. .52 - —
Polymyxin, bulk, bots., 25-50 billion units 1,000,000 units. .54 - —
bulk, bots., 1-25-billion units. 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms. 20,000-lb. lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works, lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works. lb. .42 - —
dms., 10,000-20,000-lb. lots, works lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Pontianak copal gum, chips, bgs lb. .26 - —
Nubs, bgs. lb. .37 - .40
Poppy seed, Argentine, bgs. lb. No stocks.
Dutch bgs. lb. .22½- —
Danish, bgs. lb. .19¾- —
Polish, bgs. lb. .20½- .21
Turkish, bgs. lb. .18½- —
Potash, caustic, liq., 45% basis, dms., c.l., works 100 lbs. 4.25 - —
dms., l.c.l., same basis 100 lbs. 5.05 - —
tanks, same basis 100 lbs 3.70 - —
Potash, caustic, flake, 88-92%, dms., c.l., same basis 100 lbs. 9.15 - —
dms., l.c.l., same basis 100 lbs 10.20 - —
Solid, 88-92%, dms., c.l., works. 100 lbs. 8.70 - —
dms. l.c.l. works 100 lbs 9.75 - —
Potassium acetate, NF, dms. lb. .31 - .36
Potassium bicarbonate, USP, gran. dms lb. .22 - —
USP, powd., dms. lb. .24 - —
Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 - —
bgs., l.c.l., works lb. .18½- .19¾
Potassium bichromate in dms., ¾c. higher.
Potassium bitartrate, dom., NF, gran. or powd., dms., c l lb. .40 - —
dms., 5,000 lbs., 1 shipt lb. .40½- —
dms., smaller lots lb. .41 - .43
Imp., NF, gran. or powd., kgs. lb. .30 - .34
Potassium borohydride, powd., dms., works lb.16.00 -22.00
Pelletized postassium borohydride $1.25 per lb. higher in 1,000-lb. lots.
Potassium bromate, dms., 1,000-lb. lots or more, works lb. .50 - —
dms., smaller lots, works lb. .52 - .62
Potassium bromide, USP, gran., bbls., kgs lb. .39 - .40
Potassium carbonate, dom., NF, gran., bbls dms lb. .20 - —
Potassium carbonate, dom., tech., powd., bbls., dms. lb. .21 - .22
calcined, bgs., c.l., works 100 lbs. 8.50 - —
bgs., l.c.l., same basis 100 lbs. 9.55 - —
Potassium carbonate, hydrated, 83-85%, bgs., c.l., works. 100 lbs. 7.10 - —
bgs., l.c.l., works 100 lbs. 8.15 - —
Potassium chlorate, cryst., dms., c.l., works lb. .12¼- —
dms., l.c.l., works lb. .13½- .14½
Powd., dms., c.l., works lb. .12¾- —
dms., l.c.l., works lb. .14 - .15
works lb. .12¼- —
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works. lb. .16¾- —
NF, gran. 25-lb. metal dms lb. .36 - —
NF, powd., dms., 2,000 lbs. or more, works lb. .17¼- —
Potassium chloride, agricultural (see Potassium muriate)
Indust., 99.9% KCL, bulk, c.l., works ton.29.00 - —
bgs., c.l., works ton.33.50 - —
99.3% KCL, bulk, c.l., works ton.27.00 - —
bgs., c.l., works ton.31.50 - —
USP, cryst., dms. lb. .20 - .22
gran., dms. lb. .21 - .23
powd., dms. lb. .24 - .26
Potassium chromate, tech., dms., works lb. .50 - .51
Potassium citrate, USP, gran., dms. lb. .43 - —
powd., dms. lb. .40½- .41½
Potassium cyanide, dms. 20,000-lb. lots or more, works lb. .42½- —
dms., 2,000-19,999-lb. lots, works, lb. .43 - —
dms., smaller lots, works lb. .44 - .44½
Potassium dichromate (see Potassium bichromate)
Potassium ferricyanide, dms., ton lots, works lb. .50 - —
dms., smaller lots, works lb. .65 - —
Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms., smaller lots lb. .29 - —

From Heyden Newport

N. J. Sales Representative Bob Keltz and Jim Claypoole, Newark Branch Office Manager, listen as Ed Trio, Fords Plant Manager, explains Pentek process control procedure.

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In Heyden Newport's new PENTEK® production facilities at Fords, N. J., one operator at a master control board regulates all material flow, temperatures, mixing speeds, and the time and rate of reactions. Quality is controlled by a system of interlocks and warning signals on control panels, and inter-panelboard communication circuits. A completely equipped process control laboratory is located in the building.
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Potassium fluoborate, fib dms., c.l., works lb. .30 - —
fib. dms., l.c.l., works ..... lb. .31 - —
Potassium fluoride, dms., works lb. .37 - .38
Potassium gluconate, dms. ..... lb. 1.67 - —
Potassium guaiacol sulfonate, NF, dms lb. 2.10 - 2.30
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb dms., 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots lb. 1.38 - —
Potassium iodide, USP, cryst., or gran., fib, dms lb. 1.40 - —
Potassium manure salt, 22% K.O. bulk, c.l., works unit-ton. .17 - .1765
Potassium metabisulfite, gran., dms. lb. .16 - —
Powd., dms. ..... lb. .27 - —
Potassium muriate, standard, bulk, c.l., works unit-ton. .34½- .36½
bagged, 60% minimum K.O. same basis ton 25.60 -27.80
Gran., bulk, c.l., works unit-ton. .35 - .37
bagged, 60% minimum K.O. same basis ton 25.90 -27.10
Inside prices apply to material contracted for prior to July 1, 1958.
Outside prices apply to material contracted for after that date but also for delivery during the current month
Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs. 17.00 - —
bbls., smaller lots 100 lbs. 18.00 -19.00
NF, gran., bgs., 20-ton lots. 100 lbs. 9.50 - —
bgs., smaller lots 100 lbs. 11.00 -12.00
Potassium nitrate, NF, powd., bgs., 20-ton lots 100 lbs. 10.50 - —
bgs., smaller lots 100 lbs. 12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., bbls., dms lb 32 - .34
Potassium pentaborate, gran., dms., c.l., works ton 219.50 - —
dms., ton lots, ex whse. ton 311.00 - —
dms., smaller lots, ex whse ton 316.00 - —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works lb. .18½- —
dms., l.c.l., works ..... lb. .19 - .20
Potassium permanganate, coml., kgs., works lb. .28 - .29
USP, dms., works ..... lb. .29¼- .31
Potassium persulfate, dms., c.l., works lb. .17½- —
dms., l.c.l., works ..... lb. .18 - .21
Potassium pyrophosphate, tetrabasic, dms., works lb. .15½- .18½
Potassium prussiate red (see Potassium ferro-cyanide).
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate, electrical grade, 30° Be, 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs. 7.25 - 7.65
tanks, works ..... 100 lbs. 6.15 - —
40.5° Be, 1:2.1, dms., c.l., works. 100 lbs. 5.95 - —
dms., l.c.l., 5 dm. lots or more works 100 lbs. 6.70 - —
tanks, works ..... 100 lbs. 5.60 - —
Potassium silicate, glass grade, bgs. c.l., works 100 lbs. 17.30 -18.15
bgs., l.c.l., works ... 100 lbs. 17.80 - —
Potassium silicate, soln., 29° Be, 1:2.5, dms., c.l., works. 100 lbs. 4.95 - —
dms. l.c.l., 5-dm. lots or more, works 100 lbs. 5.70 - —
tanks, works 100 lbs. 4.60 - —
Potassium silicofluoride, bgs., works lb. .09½- .10
Potassium silicofluoride in drums, 0.4c. per lb. higher.
Potassium stannate, dms., frt. alld. E lb. .784 - .857
Potassium sulfate, agricultural, bulk, c.l., works unit-ton. .67½- .69½
Inside price applies to tonnage contracted for prior to July 1, 1958.
Outside price applies to tonnage contracted for after that date but also for delivery during the current month.
Potassium sulfate, NF VII, cryst., dms lb. .31 - .33
NF VII, gran., dms ..... lb. .18½- —
NF VII, powd., dms ..... lb. .16 - .17
Potassium sulfocyanate, NF, cryst. (see Potassium thiocyanate)
Potassium thiocyanate, NF, cryst., dms., works lb. .96 - .98
Tech., dms., works ..... lb. .77 - .79
Potassium titanate, ctns., c.l., works. lb. .16¼- —
ctns., 5-ton lots, works ..... lb. .16½- —
ctns., 1-ton lots or less, works lb. .16¾- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price ton. 13.45 - —
bulk, works, July forward ton. 14.00 - —
Potassium-sodium tartrate, NF, gran. or powd., dms., f.o.b. works lb. .42½- —
dms., 5,000-lb. lots, same basis lb. .43 - —
dms., smaller lots, same basis lb. .43½- .49
Potassium-titanium fluoride, fib. dms., works lb. .39 - .40
Potassium-zirconium fluoride, fib. dms., c.l., works lb. .50 - —
fib. dms., l.c.l., works ..... lb. .52½- .55
Potato starch (see Starch, potato).
Pregnenolone, bots. ..... gram. No prices
Pregnenolone acetate, bots. ... gram. No prices
Procaine hydrochloride, USP, dms., 1,000-lb. lots, frt. alld lb. 2.60 - —
dms., 100-500 lb. lots ... lb. 2.95 - 3.15
Progesterone, USP, bots. ... gram. No prices.
Progesterone acetate, bots. ... gram. No prices.
Propane, indust., tanks, group 3. gal. .05 - —
tanks, Baton Rouge ..... gal. .05375- —
tanks, New York harbor .. gal. .1005- —
(¼c. discount offered).
Propenyl guaethol, dms. ..... lb. 24.30 -27.00
Propionic acid, syn., pure, dms., c.l., works lb. .23¼- —
dms., l.c.l., works ..... lb. .24¼- —
tanks, works ..... lb. .20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., l.c.l., dlvd. ..... lb. .16¼- —
tanks, dlvd. ..... lb. .12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 - —
dms., l.c.l., dlvd. ..... lb. .15½- —
tanks, dlvd. ..... lb. .11½- —
n-Propyl gallate, dms., 100 to 2,000-lb. lots, works lb. 3.90 - 4.40
n-Propyl-p-hydroxybenzoate, USP, dms lb 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo. 55.00 - —
bots., smaller lots ..... kilo. 55.10 -55.30
n-Propylamine, dms., c.l., dlvd lb. 1.24 - —
dms., l.c.l., same basis ..... lb. 1.255 - —
Propylene dichloride, consumers' dms., c.l., dlvd. E lb. .0845- —
dms., l.c.l., same basis ..... lb. .0995- —
tanks, same basis ..... lb. .07 - —
Propylene dichloride prices in West 1c. higher, same basis.

Propylene glycol, indust., dms., c.l., dlvd. E lb. .16 - —
dms., l.c.l., same basis ..... lb. .17 - —
tanks, same basis ..... lb. .13½- —
USP, dms., c.l., dlvd. E ..... lb. .18 - —
dms., l.c.l., same basis ..... lb. .19 - —
tanks, same basis ..... lb. .15½- —
Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., l.c.l., same basis ..... lb. .21 - —
tanks, same basis ..... lb. .18½- —
Propylene oxide, dms., c.l., dlvd. E. lb. .18 - —
dms., l.c.l., dlvd. E ..... lb. .19 - —
tanks, dlvd. E ..... lb. .15¼- —
Psyllium seed, black, bgs. ..... lb. .32 - .34
Blonde, bgs. ..... lb. .16 - .18
Husks, bgs. ..... lb. .37 - —
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .03¾- .04¼
bgs., smaller lots ..... lb. .03¾- —
Imp., Italian, silk-screen, coarse, bgs., ton lots lb. .06½- —
fine, bgs. ton lots ... lb. .04 - —
sun dried, coarse, bgs. ton. 60.00 - —
fine, bgs. ..... ton. 60.00 -70.00
Pumpkin seed, bgs. ..... lb. .25 - .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bbls., works lb. .43 - —
Powd., 1.3% pyrethrins bbls., works lb. .65 - —
Pyrethrum liquid, 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works gal. 8.75 - 8.95
100/1 basis (10 grams pyrethrins per 100cc odorless base), dms., works gal. 41.75 -42.75
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb. 10.00 - —
purif, 20% dms., works ... lb. 10.00 -10.10

Pyridine, denat., dms. c.l., works and frt. equald gal. 2.77 - —
dms. l.c.l., same basis ..... gal. 2.80 - —
Refd., 2° non-ret. dms., l.c.l., same basis lb. .75 - —
Pyridoxine hydrochloride, bots. 500-gram lots or more kilo. 190.00 - —
Pyrites, Canadian, 48-50% S, mines, long-ton. 5.00 - 6.00
Pyrocatechol (see Catechol)
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls. ..... lb. 3.17 - 3.25
Pyrogallol, NF, 100 lb. dms. ..... lb. 3.50 - —
Pyroxylin, USP, bots. ..... lb. 9.50 - —

Q

Quassia chips ..... lb. .17 - —
Quercetin, fib. dms. kilo lots. kilo. 26.40 - —
Quicksilver (see Mercury metal)
Quince seed, bgs ..... lb. 1.13 - 1.50
Quinidine sulfate, USP, cns. ... oz. .74½- .77
Quinine, NF, cns., 100-oz. lots .... oz. .34 Nom.
Quinine bisulfate, USP, cns ..... oz. .27½- .29
Quinine hydrochloride, cns ..... oz. .289 - .304
Quinine sulfate, USP, cns ..... oz. .27½- .29
Quinoline, dms., c.l., frt. equald. lb. .50¾- —
dms., l.c.l., same basis ..... lb. .51¼- —
tanks, same basis ..... lb. .50 - —

R

R salt, paste, dms. frt. alld., 100% basis lb. .88 - —
Powd. frt. alld. 100% basis ... lb. .98 - —
Rapeseed oil, dms. ..... lb. .15½- .15¾
tanks ..... lb. .13½- —
Rare earth oxalate, 45-50%, bgs., works lb. 1.00 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.00 - 1.20
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid)

Red Pigments
Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Reserpine, cryst., bots ..... gram. 1.25 - —
Resorcinol, tech grade, dms., c.l., works, frt. equald. lb. .77½- —
dms., l.c.l., same basis ..... lb. .78½- —
USP, cryst., dms., works ..... lb. 2.75 - —
powd., dms., works ..... lb. 2.95 - —
Resorcinol monoacetate, NF, dms. lb. 2.50 - —

ORONITE rates HIGHEST
as a dependable PHENOL supplier

When you ring the bell with customers there must be a reason for it. And there is. In the case of phenol, Oronite has the highest quality and service to match. And being the only marketeer with complete control of raw materials—uninterrupted supply is always assured.

Oronite Phenol is shipped by tank car or tank truck from Richmond, California, New Orleans, La., Chicago, Ill. and Paulsboro, New Jersey. You, too, will be better off doing your Phenol business with Oronite.

ORONITE CHEMICAL COMPANY
A CALIFORNIA CHEMICAL COMPANY SUBSIDIARY
EXECUTIVE OFFICES • 200 Bush Street, San Francisco 20, California
SALES OFFICES • New York, Boston, Wilmington, Chicago, Cincinnati, Cleveland, Houston, Tulsa, Los Angeles, San Francisco, Seattle
Foreign Affiliate: California Chemical International, Inc., San Francisco, Geneva, Panama

Rhatany Root—Sodium Bichromate

Rhatany root, bgs. ..... lb. .15 - .16
Rhodamine red toner, molybdated, PMA, kgs lb. 6.00 - —
Tungstated, PTMA, works, kgs lb. 6.60 - —
Rhodinol, 5-lb. cans ..... lb.43.00 -46.00
Synthetic ..... lb.14.00 -16.00
Rhubarb root, India, whole, bgs lb. .30 - —
powd., bgs. ..... lb. .38 - —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo.36.00 - —
USP, readily soluble, bots., dlvd. kilo.130.00 - —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more dlvd. kilo.104.50 - —
Rice bran oil, clarified, dms., l.c.l. lb. .15½- —
tanks, dlvd. E ..... lb. .13½- —
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate).
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian bots oz.72.00 - —
Turkish, bots. ..... oz.55.00 -58.00
Rosemary oil, Spanish, NF, cns., dms. lb. .95 - 1.35
tech., cns., dms. ..... lb. .50 - 1.20
Rosin, gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fin. dms., works, unit-lb. .12 - —
Resin, 25-45%, fib. dms., works, unit-lb. .12 - —
Rottenstone, bgs., 5-ton lots, ex-whse lb. .03¾- —
bgs., ton lots, same basis ..... lb. .04¼- —

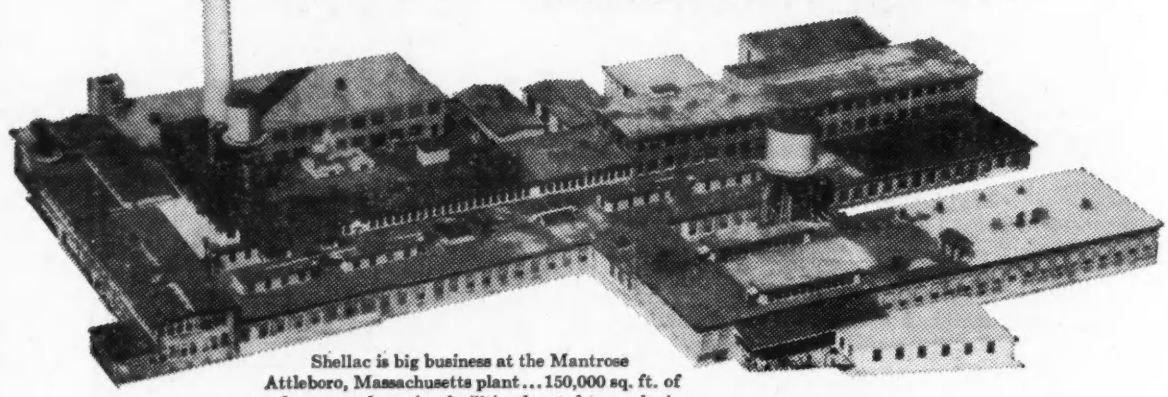
Rubber solvent, petroleum, tanks, Calif. ex tax, San Francisco gal. .178 - —
tanks, east coast, N. J., N. Y. gal. .19 - —
tanks, group 3 ..... gal. .13875- —
Rue oil, bots. ..... lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots kilo.16.50 - —
fib. dms., 5 kilo lots ..... kilo.17.00 - —
fib. dms., 1 kilo ..... kilo.18.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis ..... lb. .24 - —

S

S acid, bbls., works ..... lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib dms., 1,000-lb. lots, works lb. 2.50 - —
USP, gran., soluble dms., 1,000-lb. lots lb. 1.60 - —
dms., smaller lots ..... lb. 1.70 - 1.80
Saccharin, USP, powd., soluble in-soluble, dms., 1,000-lb. lots lb. 1.65 - —
dms., smaller lots ..... lb. 1.75 - 1.93
Safflower oil, dms., New York lb. .1785- .1825
tanks, Atl. Coast ..... lb. .1585- —
Safrol, dms. ..... lb. .80 - .93
Saffron, Mancha Superior, tins lb.34.00 - —
Sage, Dalmatian, bgs. ..... lb. .36 - .40
Greek, cns. ..... lb. .14 - —
Italian, cns. ..... lb. .15 - —
Sage oil, clary, bots. ..... lb.25.00 -32.00
Dalmatian, cns. ..... lb. 3.70 4.00
Spanish, cns. ..... lb. 1.35 - 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b. plant, frt. equald lb. 1.23 - —
dms., l.c.l., same basis ..... lb. 1.25 - —
Salicylamide, 100-lb. dms. ..... lb. 1.05 - —
Salicylic acid, crude, fib. dms., c.l., t.l., frt. alld lb. .37¼- —
fib. dms., l.c.l., frt. alld. on 100 lbs. or more lb. .38½- —
Sublimed, tech., fib. dms., c.l., t.l., dlvd lb. .39¼- —
fib. dms., l.c.l., dlvd. ..... lb. .43½- —
USP, cryst., 200-lb fib. dms., 1,000-lbs. or more ... lb. .50½- —
200-lb. fib. dms., less than 1,000 lbs lb. .53½- —
100-lb. fib. dms., 1,000-lbs. or more lb. .52½- —
100-lb. fib. dms., less than 1,000 lbs. lb. .55½- —
USP, powd., 100-lb. fib. dms., 1,000-lbs. or more lb. .57½- —
100-lb. fib dms., less than 1,000 lbs lb. .60¼- —
Salol, NF, gran., bbls., kgs. lb. 1.20 - —
Powdered salol, 25c per lb. higher
Salt, rock, paper bgs., c.l., 100 lbs. 1.09 - —
Salt, table vacuum, common, fine, paper bgs., c.l 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton.28.00 - —
Saltpeter (see Potassium nitrate)
Sandalwood, E. Indian, chips, bgs. lb. .63 - .66
powd., fib. dms. ..... lb. .75 - .76
Sandalwood oil, cns. ..... lb.13.50 -14.50
Sardine oil, crude, tanks, Pac. coast. lb. No stocks
Sassafras oil, artif., dms. ..... lb. .59 - .75
Nat., dom., dms. ..... lb. 1.70 - 2.15
Savin oil, USP, cns. ..... lb. 7.50 - —

Savory oil, cns. ..... lb 4.25 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .83 - —
Schaeffer's salt, powd., bgs., frt. alld., 100% basis lb. .93 - —
Scopolamine hydrobromide, USP, bots oz.13.00 -15.90
Sebacic acid, CP, bgs., c.l., works. lb. .69½- —
bgs., l.c.l., works ..... lb. .71½- —
Purified, bgs., c.l., works ..... lb. .65½- —
bgs., l.c.l., works ..... lb. .67½- —
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½- —
fib. dms., smaller lots ..... lb. .31 - .33
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls. ..... lb. 2.00 - 2.10
Senna leaves, Alexandria, whole and half, bls lb. .22 - —
siftings ..... lb. .18 - —
Tinnevelly, No. 1, bls. ..... lb. .22 - —
No. 2, bls. ..... lb. .18 - —
No. 3, bls. ..... lb. .14 - —
pods, bls. ..... lb. .28 - —
powd., bbls., bxs. ..... lb. .17 - —
Serpentaria root, bls. ..... lb. 5.00 - 5.50
Sesame oil, USP, dms. ..... lb. .38 - .39
Sesame seed, Columbian, bgs. ... lb. .15½- —
Lebanese, hulled, bgs. ..... lb. .19 - —
Nicaraguan, hulled shipt., bgs lb. .24½- —
nat., bgs. ..... lb. .16 - —
Salvadorian, nat., bgs. ..... lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .46 - —
bbls., 1,500-lb. lots ..... lb. .47 - —
kgs., 1,500-lb. lots ..... lb. .48 - —
Bonedry shellac prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.
Shellac, bleached, refd., bgs., 1,500-lb. lots ..... lb. .56 - —
bbls., 1,500-lb. lots ..... lb. .57 - —
kgs., 1,500-lb. lots ..... lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .36 - .39
lemon No. 2, bgs., 10-bg. lots lb. .33 - .37
superfine, bgs., 10-bg. lots .. lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works ..... gal. .48 - —
tanks, works ..... gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18¼
paper bgs., l.c.l., works .. lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works .. lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton.25.00 - —
bgs., l.c.l., works, ex whse. ton.45.00 -55.00
hard-quartz, 99½%, 325 mesh, bgs., c.l., works ..... ton.20.00 - —
bgs, l.c.l., works ..... ton.25.00 - —
99½%, 140 mesh, bgs., c.l., works ton.15.00 - —
bgs., l.c.l., works .. ton.20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
dms., l.c.l., works ..... lb. .22 - .30½
tanks, works ..... lb. .17 - —
Silver bullion, ingots, cs. Troy oz. .90⅜- —
Silver cyanide, bots., 1,000-oz. lots, oz. .93½- —
bots., 500-oz. lots ..... oz. .94 - —
bots., 100-oz. lots ..... oz. .95 - —
Silver nitrate, CP, cryst., bots., 3,000-oz. lots oz. .66¼- —
dm., 1,000-oz. lots ..... oz. .66¾- —
bots., 500-oz. lots ..... oz. .67¾- —
bots., 250-oz. lots ..... oz. .67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.15 - —
Strong, NF, bots., dms., 1,000-oz. lots oz. 1.10 - —
Snakeroot oil, Canada, cns. ... lb.45.00 -60.00
Soapbark, crushed, bls. ..... lb. .35 - —
Powd., bls. ..... lb. .35 - —
Whole, bls. ..... lb. .30 - —
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100-lbs. 3.00 - 4.77
bulk, c.l., works ..... 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works ... 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 - —
Liq., 50%, sellers tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
73%, sellers' tanks, works, dry basis 100 lbs. 3.00 - —
Liq., 73%, rayon type, sellers' tanks, works, dry basis.100 lbs. 3.00 - 3.10
Solid, 76%, dms., c.l., works. 100 lbs. 4.80 - —
Soda, sal, conc., bgs., c.l., works., 100 lbs. 2.50 - —
bgs., smaller lots, works .100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½- —
NF, 60%, gran., dms., c.l., works, lb. .15½- —
dms., l.c.l., works ..... lb. .17½- —
Sodium alginate, NF, white powd., dms., 300 lbs. or more lb. .93 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 1.90 - —
Sodium antimoniate, bgs., c.l., dlvd. E lb. .25½- —
bgs., l.c.l., dlvd. E ..... lb. .27 - —
Sodium arsenate, 60% arsenic pentoxide, dealers, dms., ton or more, works lb. .26 - —
dms., less than ton lots, works lb. .26½- —
Sodium arsenite, 90% pink powder, 75% arsenious oxide, dealers, dms., ton lots or more, works lb. .17½- —
dms., less than ton lots, works lb. .18 - .19
Sodium ascorbate, dms., 25-50 kilo lots kilo.10.00 - —
dms., 10-kilo lots ..... kilo.10.35 - —
dms., 5-kilo lots ..... kilo.10.75 - —
dms., 1-kilo lots ..... kilo.11.00 - —
bots., 500-gram, bots. ..... kilo.11.50 - —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld. lb. .35 - —
dms., l.c.l., same basis ..... lb. .39 - —
USP, dms., c.l., t.l., frt. alld. lb. .38 - —
dms., ton lots, same basis.... lb. .43 - —
dms., 1,000-lb. lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
bgs., l.c.l., works ..... 100 lbs. 3.85 - —
USP, powd., bgs., c.l., works. 100 lbs. 2.55 - —
bgs., l.c.l., works ..... 100 lbs. 3.45 - —
Sodium bichromate, gran., bgs., c.l. t.l., works lb. .13 - —
bgs., l.c.l., works ..... lb. .13½- .14¾
Sodium bichromate in dms. ¾c. per lb. higher.

HOW to give better service to shellac users!



Shellac is big business at the Mantrose Attleboro, Massachusetts plant... 150,000 sq. ft. of modern manufacturing facilities devoted to producing superior shellac products for industry and home.

QUALITY... RESEARCH... PRODUCTION... INTEGRITY... **These are the "secret ingredients" in every Mantrose shipment that insure the truly finer service our customers have learned to expect.**

QUALITY starts with the raw lac imported from India... and the rigid controls under which it is processed. For close to four decades, the Mantrose Corporation has held true to its pledge to produce the finest bleached shellac available anywhere... with uniformity of product you can depend upon, batch after batch.

RESEARCH backs up the Mantrose pledge with scientific quality control... with improvements that further enhance the innate superiority of natural shellac. If you have a shellac problem, or require a product tailored to your individual requirements... consultants from the Mantrose Laboratories are at your service.

PRODUCTION FACILITIES must also be modern, efficient. Our recently acquired Attleboro plant keeps step with growing demand for Mantrose products... insures prompt deliveries for our customers' normal and emergency needs.

But surely the most important test of real service is Integrity. It has earned the confidence of our customers, which made Mantrose growth possible. It is an asset we guard most carefully... for only by sincere service can we continue to earn this trust.

The Mantrose Corporation

ESTABLISHED 1919 — IMPORTERS • BLEACHERS • MANUFACTURERS

ONE HANSON PLACE, BROOKLYN 17, NEW YORK • ATTLEBORO, MASSACHUSETTS

Sodium bifluoride, bbls., c.l., works, frt. equald. lb. .19¼- —
bbls., l.c.l., same basis ..... lb. .1990- —
Sodium bisulfate, bulk, c.l., works, 100 lbs. 2.00 - —
dms., c.l., frt. equald 100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald 100 lbs. 3.50 - 4.10
Sodium bisulfite, anhyd., bgs. c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works 100 lbs. 5.45 - —
Soln., 35°, bbls., c.l., works 100 lbs. 1.70 - —
bbls., l.c.l., works 100 lbs. 2.20 - —
Sodium borate (see Borax)
Sodium borohydride, powd., dms., works lb. 33.00 -40.00
Stabilized water soln., 12% $NaBH_4$, 100% basis, dms., works lb. 15.00 - —
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb. lots.
Sodium bromide, USP, gran., dms., works lb. .40 —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l., works 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 - —
dms., l.c.l., works lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., ums., c.l., works lb. .58 - —
dms., 20-dm. lots or more, works, lb. .66 - —
dms., smaller lots, works lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., l.c.l., works lb. .28 - —
Sodium chromate, anhyd., fib. dms., c.l., t.l., works lb. .14¾- —
fib. dms., l.c.l., works lb. .15¼- .16½
Sodium chromate, tetrahydrate, bgs., c.l., t.l., works lb. .1015- —
bgs., l.c.l. lb. .1065- .1190
Sodium citrate, anhyd., dms. lb. .62 —
NF VIII, gran., dms lb. .26½- .27½
USP XIV, gran., dms. lb. .29½- .30½
Sodium citrate, USP powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 - —
dms., smaller lots, works lb. .90 - 1.10
Sodium cyanide, flake, 96-98%, dms., c.l. or 20,000-lb. lots lb. .193 - —
dms., over 1,000-lb. lots lb. .203 - —
dms., 100-lb. to 1,000-lb. lots lb. .213 - —
Gran. sodium cyanide 1c. higher.
Sodium cyclamate, 100-lb. dms lb. 1.95 - —
Sodium diacetate, anhyd., 39-41% acetic acid, 250-lb. dms., c.l., works lb. .18 - —
250-lb. dms., l.c.l., works lb. .18¾- —
tech., 33-35% acetic acid, dms. l.c.l., works lb. .15 - —
250-lb. dms., l.c.l., works lb. .15¾- —
Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., l.t.l., same basis lb. .47 - .52
tanks, same basis lb. .38 - —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs., smaller lots lb. .14¾- —
Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390- —
fib. dms., l.c.l., works, frt. equald lb. .1430- —
Sodium formate, bgs., c.l., works, 100 lbs. 7.05 - —
bgs., l.c.l., ex whse. 100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —
Sodium gluconate, refd., dms. lb. .34 - —
Tech., dms., bgs. lb. .37 - .39
Sodium hydride, 50% soln. in oil, dms. works lb. 1.25 - 2.50
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite, dms. c.l., frt. alld. lb. .22½- —
dms., l.c.l., frt. alld. lb. .24¾- —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots, lb. .23½- .28
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms., 1,000-lb. lots lb. .97 - —
Sodium hyposulfite, anhyd., photo grade, bgs., c.l., works, 100 lbs. 7.50 - 8.05
bgs., l.c.l., works lb. 7.59 - 8.45
Sodium hyposulfite, anhyd., tech., bgs., c.l., works 100 lbs. 7.25 - —
bgs., l.c.l., works 100 lbs. 7.60 - —
Sodium hyposulfite hexahydrate, pea cryst., bgs. c.l., works, 100 lbs. 5.15 - —
bgs., l.c.l. works 100 lbs. 5.55 - —
Sodium hyposulfite hexahydrate, photo grade, bgs., c.l., works, 100 lbs. 7.75 - —
bgs., l.c.l., works 100 lbs. 8.05 - —
Sodium hyposulfite pentahydrate, tech., bgs., c.l., works, 100 lbs. 4.65 - 5.15
bgs., l.c.l., works 100 lbs. 4.90 - 5.55
Sodium iodide, USP, 300-lb. dms. lb. 1.98 - —
Sodium lactate, edible, 60%, cbys., dms., works lb. .26¼- —
Sodium lauryl sulfate, dms., c.l., dlvd. lb. .19 - —
dms., l.c.l., dlvd. lb. .20 - —
tanks, dlvd. lb. .18 - —
Sodium metabisulfite (see Sodium bisulfite).
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 - 6.50
l.c.l., bgs., works 100 lbs. 4.40 - 7.00
Sodium metaborate octahydrate, gran., bgs., c.l. works ton 102.00 - —
bgs., ton lots, ex whse. 100 lbs. 8.00 - —
bgs., smaller lots ex whse. 100 lbs. 9.25 -11.25
Sodium metaborate, tetrahydrate, bgs., c.l. works ton 210.00 - —
bgs., ton lots, ex whse. 100 lbs. 13.93 - —
bgs., smaller lots, ex whse. 100 lbs. 15.13 -17.18
Sodium, metallic, bricks, c.l. works, lb. .19½- —
Fused, 18,000-lb. lots or more, works lb. .19 - —
tanks, works lb. .17 - —
Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works, 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 - 7.25

Sodium molybdate, anhyd., dms., works, frt. equald. lb. .92 - .99
Cryst., dms., works, frt. alld. lb. .89 - —
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate, monohydrated).
Sodium naphthionate, bbls. lb. .70 - —
Sodium nitrate, dom., crude, bgs., c.l., works ton 45.50- —
bulk, c.l., works ton 41.50 - —
Imp., 100-lb. bgs., c.l., Atl., Gulf, Pac., whse. ton 45.50 - —
bulk, c.l., same basis ton 41.50 - —
Sodium nitrite, USP, bbls., c.l., works, frt. equald. 100 lbs. 9.00 - —
bbls., l.c.l., same basis 100 lbs. 11.00 - —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
dms., l.c.l., works 100 lbs. 7.05 - 7.65
Sodium orthosilicate, nydrated, flake, bbls., c.l. works, 100 lbs. 5.65 - —
bbls, l.c.l., works 100 lbs. 7.60 - 7.90
Sodium oxalate, 98%, bgs., works, 100 lbs. 12.35 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate).
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 - —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 - —
dms., c.l., same basis lb. .27½- .34
Sodium pentachlorophenate, powd., dms., c.l., same basis lb. .25 - —
dms., l.c.l., same basis lb. .26½- .33
Sodium pentobarbital, USP, dms., 100 lbs. or more lb. 6.00 - —

Sodium perborate, NF, tech., bgs., c.l., works lb. .18½- —
bgs., l.c.l., works lb. .19 - .21
Sodium peroxide, dms., c.l., t.l., dlvd. E. of Miss. lb. .20½- —
dms., l.c.l., same basis lb. .21 - .21½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 - —
Sodium phenolsulfonate, USP, IX, gran., dms lb. .52 - .53
NF, powd., dms lb. .55 - .56
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald., 100 lbs. 7.95 - —
bgs., l.c.l., same basis 100 lbs. 8.35 - 9.40
duohydrate, bgs., c.l., frt. equald 100 lbs. 7.60 - —
bgs., l.c.l., same basis 100 lbs. 8.10 - —
USP, dried, powd., bgs., dms., works lb. .19 - .20½
Sodium phosphate, monobasic, anhyd., bgs., c.l., frt. equald. 100 lbs. 9.00 - —
bgs., l.c.l., same basis 100 lbs. 9.40 - 10.00
Sodium phosphate, tribasic, anhyd., bgs., c.l., frt. equald. 100 lbs. 9.05 - —
bgs., l.c.l. frt. equald. 100 lbs. 9.45 - 10.05
Cryst., bgs., c.l., t.l., frt. equald. 100 lbs. 4.60 - —
bgs., l.c.l., frt. equald 100 lbs. 5.00 - 5.75
Sodium phosphate in dms. 60c to 80c. higher than bgs.
Sodium prussiate, yellow (see Sodium ferrocyanide).

Sodium pyrophosphate acid, bgs., c.l., works, frt. equald. 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.95 -12.35
Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., works lb. .37 - .39
Sodium pyrophosphate tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 - —
bgs., l.c.l., same basis 100 lbs. 9.21 - 9.71
Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½- —
dms., less than 1,000 lbs dms. lb. .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 —
bgs., l.c.l., dlvd. zone 1 100 lbs 4.10 4.35
dlvd. zone 2 100 lbs 4.35 4.60
dlvd. zone 3 100 lbs 4.75 4.90
dlvd. zone 4 100 lbs 5.35 5.60

Sales zones are: (1) All states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss., south of 31°; Tex E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn. Mo. (except St. Louis) Neb. E. of 98° N. C., S C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No of 31°; (3) Ark. W. of 98°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

What Blockson Service Means

In Texas, New England, beyond the Rockies... you'll find Blockson customers within a stone's throw from some local phosphate source. Ask any of them why they favor Blockson and you get pretty much the same answer.

"Blockson ships us the phosphates when we want them."

A typical phone call to Blockson shows you what they mean:

An East Coast buyer phones collect to order a mixed car of phosphates, and includes Sodium Silicofluoride and Sodium Fluoride in the car.

"How soon can I get that car?"

"Hold the phone...We'll move the car for you tomorrow — usual routing. We'll wire the car number and trace it... You can look for it Thursday."

This is ordinary routine at Blockson, but it is extraordinary in two important particulars.

FIRST: *At our end, the entire sales, service and traffic operation was handled on the buyer's first and only phone call. There was no cross correspondence, no branch-to-home-office time lag.*

SECOND: *The buyer talked only to one man. This man has the job of taking the red tape out of sales, service and shipping.*

Incidentally, if the buyer had phoned to change, add to, or re-route his order, he would get the same spot service.

Such routine promptness in speeding your chemicals to you is almost without parallel in a company that does so large a volume as Blockson. That's because we use organization to clear the decks instead of cluttering them.

We can put this organization to work for you. Try us.

BLOCKSON IS A MAJOR PRODUCER OF:

- Sodium Tripolyphosphate
- Tetrasodium Pyrophosphate
- Trisodium Phosphate Crystalline • Monohydrate
- Trisodium Phosphate Chlorinated
- Disodium Phosphate Crystalline • Anhydrous
- Monosodium Phosphate Anhydrous • Monohydrate
- Sodium Polyphos*
- Sodium Acid Pyrophosphate
- Tetrapotassium Pyrophosphate
- Sodium Fluoride
- Sodium Silicofluoride
- Hygrade Fertilizer
- C-29 Sequestering Agent
- Teox 120 (Nonionic Surfactant)
- Hydrofluoric Acid
- Sulfuric Acid

*Sodium Hexametaphosphate—Sodium Tetraphosphate

OLIN MATHIESON CHEMICAL CORPORATION — BLOCKSON

BLOCKSON CHEMICAL COMPANY • Joliet, Ill.
Division of Olin Mathieson Chemical Corporation

WAREHOUSE STOCKS AT ALL BLOCKSON DISTRIBUTORS

Sodium Sesquisilicate—Styrene Monomer

Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 - —
dms., c.l., t.l., works ...100 lbs. 6.20 - —
hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 5.35 - —

Sodium sesquisilicate, hydrated, dms., c.l., works 100 lbs. 5.50 - —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 - —

Sodium silicate, liq., 40° Be, turbid, 1:3.2, dms., c.l., works. 100 lbs. 1.55 - —
dms., l.c.l., works 100 lbs. 1.90 - 2.40
tanks, works .....100 lbs. 1.20 - —
47° Be., turbid, 1:2.9, dms., c.l., works 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works .....100 lbs. 1.90 - —
52° Be., turbid, 1:2.4, dms., c.l., works 100 lbs. 2.63 - —
dms., l.c.l., works....100 lbs. 3.00 - 3.50
tanks, works .....100 lbs. 2.30 - —
Solid, 1:3.2, bgs., works.....ton.67.50 - —

Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works.....lb. .069 - —
Sodium silicofluoride in dms., 0.4c. per lb. higher.

Sodium stannate, dms., works, frt. alld. E lb. .642 - .703

Sodium sulfa drugs (see Sulfa name).

Sodium sulfanilate, bbls., works..lb. .22 - —

Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E ton.54.00 - —
detergent, rayon grade, bgs., c.l., works ton.36.00 - —
bulk, c.l., works .....ton.32.00 - —
USP, cryst., fib. dms. ..... lb. .17½- .18

Sodium sulfhydrate, flake, 70-72%, dms., c.l., works frt. equald. lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton.130.00 - —

Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis ... lb. .07 - —
fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis .... lb. .06½- —

Sodium sulfite, anhyd., bgs., c.l. works 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 7.95 - —
Tech, bgs., c.l., works .. 100 lbs. 3.50 - —
bgs., t.l., same basis ...100 lbs. 4.00 - —

Sodium sulfocyanide, CP (see Sodium thiocyanate).

Sodium tetraborate (see Borax)

Sodium tetrasulfide, liq., 40% dms., c.l., works, frt. equald. lb. .04½- —
dms., l.c.l., same basis .. lb. .05½- —

Sodium thiocyanate, CP, dms ...lb. .55 - .65
Tech., anhyd., dms., 1 ton lots or more, works lb. .317 - —
dms., less than ton lots, works lb. .337 - —

Sodium thiosulfate, NF, cryst. bbls. lb. .13¼- —

Sodium thiosulfate, tech. (see Sodium hyposulfite).

Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works .....lb. .14½- —
ctns., 1-ton or less, works.....lb. .14¾- —

Sodium trichloroacetate, 94%, 100-lb. dms., c.l., frt. alld. E. lb. .35 - —
50-lb. dms., c.l., frt. alld. E lb. .35¼- —
10-lb. cns., c.l., frt. alld. E. ..lb. .42 - —
Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.

Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 8.16 - —
bgs., l.c.l., same basis ...100 lbs. 8.58 - 9.06

Sodium trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.95 - —
bgs., l.c.l., works .....100 lbs. 9.70 -13.13
dms., c.l., works .....100 lbs. 9.45 - —
dms., l.c.l., works.....100 lbs.10.20 -10.60

Sodium tungstate, tech., kgs. dlvd. E lb. 1.18 Nom.

Sodium-ammonium phosphate, purif., cryst., dms., works lb. .32 - —

Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).

Sodium-formaldehyde sulfoxylate, dms., c.l., dlvd. lb. .21 - —
dms., l.c.l., same basis ..... lb. .21½- —

Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 - —
fib., dms., smaller lots, same basis lb. .30 - —

Solvent naphtha, coaltar, high-flash, tanks, frt. equald gal. .30 - .35½

Solvent naphtha, petroleum, aromatic 312°-365°F. b.r., 17.2°C. m.a.p., tanks, New Jersey....gal. .31 - —
315°-350°F. b.r., 17.2°C. m.a.p., tanks, Texas City.....gal. .35 - —

Solvent naphtha, petroleum, aromatic, 342°-351°F, b.r., 15°C, m.a.p., tanks, Baytown, Texas gal. .29 - —
324°-349°F, b.r., 16.5°C, m.a.p., tanks, Houston ..... gal. .33 - —
322°-350°F, b.r., 17.2°C, m.a.p., tanks, Baytown, Tex. gal. .29 - —
352°-413°F, b.r., 17.5°C, m.a.p., tanks, Houston ..... gal. .32 - —
365°-404°F, b.r., 19°C, m.a.p., tanks, New Jersey ..... gal. .33 - —
367°-421°F, b.r., 20°C, m.a.p., tanks, Baytown, Tex.. gal. .30 - —

Solvent naphtha, petroleum, partial aromatic, 205°-282°F, b.r., 38°C, m.a.p., tanks, New Jersey gal. .24 - —
211°-277°F, b.r., 25.6°C, m.a.p., tanks, New York, New Jersey gal. .28 - —
221°-278°F, b.r., 34.8°C, m.a.p., tanks, Houston ..... gal. .20 - —
282°-325°F, b.r., 41.6°C, m.a.p., tanks, Houston ..... gal. .25 - —
357°-403°F, b.r., 34°C, m.a.p., tanks, Houston ..... gal. .26 - —
358°-401°F, b.r., 24.4°C, m.a.p., tanks, New Jersey gal. .38 - —

Sorbitan monostearate, fib. dms., 20,000-lb. lots, works lb. .33 - —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .35 - —
fib. dms., smaller lots, works lb. .38 - .40

Sorbitan tristearate, fib. dms., 20,000-lb. lots, works lb. .34 - —
fib. dms., 10,000 to 20-000-lb. lots, works lb. .36 - —
fib. dms., smaller lots, works lb. .39 - .41

Sorbitol, cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
dms., 1 to 5-ton lots, works. lb. .25 - .26
Powd., dms., c.l., works..... lb. .36 - —
dms., 1 to 5-ton lots, works. lb. .38 - .39

Soln., coml., aqueous, dms., c.l., works lb. .24¼- —
dms., ton lots, works lb. .25 - —
dms., smaller lots, works lb. .25¼- —
tanks, works ..... lb. .23¼- —

NF, reg., 70% aqueous, dms., c.l., works lb. .16 - —
dms., ton lots, works lb. .16¾- —
dms., smaller lots, works lb. 17 - —
tanks, works ..... lb. .15 - —

Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., l.c.l., works ..... lb. .23½- —
Chemically isolated, new process, bgs., c.l., works lb. .19 - —
bgs., l.c.l., works ..... lb. .19½- —

Soybean meal, 44%, bulk, Decatur, ton.55.00 - —

Soybean oil, crude, tanks, Decatur. lb. .09⅜- —
Foots, soapstock, acid 95%, tanks, N. Y. lb. .04⅞- —
Soybean oil, refd., alkali, dms. lb. .13675- .13925
tanks ..... lb. .11625- —
Clarified, dms. ..... lb. .13175- .13425
tanks ..... lb. .11175- —
Salad, dms. ..... lb. .13⅝- .13⅞
tanks ..... lb. .11⅝- —

Soybean oil acids, dbl. dist., dms., lb. .18 - .20¼
tanks ..... lb. .15½- —
S. D., dms..... lb. .16¾- .19¼
tanks ..... lb. .14¼- —

Soybean pitch, dms., works....lb. .05 - .05¼

Sparteine sulfate, cns. .....oz. .80 - .90

Spearmint leaves, dom., bls. .....lb. .75 - —

Spearmint oil, NF, dms. ..... lb. 6.00 - 7.00

Sperm oil, bleached, winter, 45°, dms. lb. .1525- .16
tanks ..... lb. .1350- —
Nat., winter, 45°, dms. ..... lb. .1425- .15
tanks ..... lb. .1250- —

Spermaceti wax, blocks, cs. ....lb. .31 - .34
Cakes, cs. ..... lb. .32 - .34

Spruce oil cns., dms. ..... lb. 2.10 - 3.55

Squill, white, bls ..... lb. .16 - .18
powd., bbls., bxs ..... lb. .17 - .20

St. John's bread, edible, bls.....lb. .14 - .16

Stannic chloride, anhyd., dms., works lb. .812 - .834

Stannic oxide, dms., dlvd. ..... lb. 1.08½- 1.09½

Stannous chloride, anhyd. dms., works lb. 1.007 - 1.262

Stannous chloride, hydrous, cryst., dms., works lb. .87 - .88

Stannous sulfate, dms., works....lb. 1.062 - 1.082

Star root (see Helonias root).

Stargrass root (see Aletris root).

Stavesacre seed, bgs. ..... lb. .60 - .61

Stearic acid, dbl., pressed, bgs. lb. .16¾- .19¼
Single-pressed, bgs. ..... lb. .16¼- .18¾
Triple-pressed, bgs. ..... lb. .18½- .21

Stearine, oleo (see Oleostearine).

Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 - —
tanks, western Pennsylvania, gal. .16 - —
tanks, group 3 ..... gal. .12875- —
tankwagon, Boston ..... gal. .20 - —
Chicago ..... gal. .299 - —
Cleveland ..... gal. .23½- —
Los Angeles, ex tax..... gal. .199 - —
tankwagon, Newark ..... gal. .19 - —
New York ..... gal. .19 - —
Philadelphia ..... gal. .19½- —
Pittsburgh ..... gal. .19 - —

Stramonium leaves, bgs..... lb. .16 - .19

Streptomycin hydrochloride, bulk, gram. .05 - —

Streptomycin sulfate, bulk...gram. .05 - —

Strontium bromide, NF, cryst., 150-lb. fib. dms..lb. .84 - —

Strontium carbonate, pure, dms., 5-ton lots or more, works.lb. .35 - —
dms., 1-ton lots, works.....lb. .37 - —
Tech., dms., works ..... lb. .19 - —

Strontium chromate fib. dms., dlvd. lb. .48 - —

Strontium iodide, jars, 25-lb. lots. lb. 3.57 - —

Strontium nitrate, bgs., c.l., works. 100 lbs.11.00 - —
bgs., l.c.l., works.....100 lbs. 12.00 - —

Strontium salicylate, NF, dms. ...lb. 1.88 - —

Strontium sulfate, air floated, 90%, 325 mesh, bgs., works.. ton.56.70 -66.15

Strophanthin G (see Ouabain, USP).

Strophanthin K, bots. ..... oz.25.00 -25.50

Strophanthus seed, Kombi, biologically tested, bgs..lb. 3.50 - 3.75

Styrax gum, USP, cs. ..... lb. 3.00 Nom.

Styrene monomer, polymer grade, 99.6%, dms., c.l., frt. alld. lb. .17 - —
dms., l.c.l., same basis.... lb. .19 - —
tanks, same basis..... lb. .14¼- —

Styrene monomer, tech., 99.2%, dms., c.l..lb. .152 - —
dms., l.c.l., same basis....lb. .172 - —
tanks, bulk, same basis....lb. .127 - —

Above prices are escalated for each calendar quarter on the basis of cost of crude oil at the well, cost of petroleum refining labor, and prices in the three major sections of the Wholesale Commodity Price Index.

Styrolyl acetate, bots. ..... lb. 1.25 - 1.45

Succinic acid, purif., cryst., bbls., works..lb. .62 - .75

THORIUM, RARE EARTH and YTTRIUM

Chemicals and Metals

RARE EARTH SALTS

from our general production process, supplied as oxides, fluorides, chlorides and other compounds

GADOLINIUM SALTS
NEODYMIUM SALTS
YTTRIUM CONCENTRATES
BARNESITE—Special Rare Earth Oxide lens-polishing agent
SAMARIUM-GADOLINIUM CONCENTRATES
RARE EARTH SALTS, technical
CEROX—(Optical Grade Cerium Oxide) for glass and granite polishing
SAMARIUM SALTS
THORIUM SALTS
CERIUM SALTS
DIDYMIUM SALTS—(All the Rare Earths except Cerium)

The purchase and sale of all thorium salts are under the jurisdiction of the United States Atomic Energy Commission. Application for a purchase license should be directed to Licensing Controls Branch, Atomic Energy Commission at 1901 Constitution Avenue, Washington 25, D. C.

SALTS OF HIGHLY PURIFIED RARE EARTHS

most of which are produced by the Ion Exchange process

YTTRIUM	PRASEODYMIUM	EUROPIUM	DYSPROSIUM	THULIUM
LANTHANUM	NEODYMIUM	GADOLINIUM	HOLMIUM	YTTERBIUM
CERIUM	SAMARIUM	TERBIUM	ERBIUM	LUTETIUM

HIGH PURITY RARE EARTH METALS

YTTRIUM	CERIUM	NEODYMIUM	EUROPIUM	TERBIUM	HOLMIUM
LANTHANUM	PRASEODYMIUM	SAMARIUM	GADOLINIUM	DYSPROSIUM	ERBIUM
	THULIUM	YTTERBIUM	LUTETIUM	THORIUM	

Write for Technical Information

Lindsay Thorium, Rare Earth and Yttrium Chemicals and Metals are available for immediate shipment. Technical and cost data will be supplied promptly on request.

PLEASE ADDRESS INQUIRIES TO

TRONA LINDSAY CHEMICAL DIVISION

American Potash & Chemical Corporation

250 ANN STREET, WEST CHICAGO, ILLINOIS

OFFICES: CHICAGO • LOS ANGELES • SAN FRANCISCO • NEW YORK • PORTLAND (ORE.) • ATLANTA • COLUMBUS (O.) • SHREVEPORT

Sucrose, refd., white, bgs., refy. lb. .0635 - —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works lb. 1.00 - —
Sugar (see Sucrose).
Sugar cane wax, dom., refd., slabs, 80-lb. ctns., works lb. .65 - .75
80-lb ctns., spot lb. .67½ - .72¼
Sulfabenzamide, dms. kilo 8.80 - 9.90
Sulfabenzamide-sodium, dms. kilo 9.00 - 10.10
Sulfacetamide, USP, fib. dms. kilo 7.70 - 8.80
Sulfacetamide-sodium, USP, fib. dms kilo 8.15 - 9.25
Sulfadiazine, USP, microcrystals, dms kilo 23.35 - 24.45
USP, powd., dms. kilo 22.60 - 23.70
Sulfadiazine-sodium, USP, dms kilo 24.80 - 25.90
Sulfaguanidine, NF X, dms kilo 5.50 - 6.60
Sulfamerazine, USP, microcrystals, dms kilo 23.50 - 24.60
Sulfamerazine-sodium, USP powd., dms kilo 24.80 - 25.90
Sulfamethazine, microcrystals, USP XV, dms kilo 19.65 - 20.75
Powd., dms. kilo 18.75 - 19.85
Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs. 16.00 - —
dms., l.c.l., l.t.l., works 100 lbs. 17.50 - 18.50
100 lbs. or more lb 6.00 - —
Gran., dms. c.l., t.l., works 100 lbs. 14.75 - —
dms., l.c.l., l.t.l., works 100 lbs. 16.25 - 17.25
Sulfanilamide, NF X, 30-80 mesh, dms kilo 3.05 - 3.50
NF X, microcrystals, dms kilo 3.79 - 4.20
NF X, powd., dms. kilo 2.85 - 3.30
Sulfanilamide quinoxaline, veterinary, dms kilo 14.12 - 14.85
Sulfanic acid, tech, dms. c.l., frt. alld lb. .21 - —
dms., l.c.l., frt. alld. lb. .23 - —
Sulfapyridine USP XV, powd., bots., tins kilo 15.45 - 16.55
Sulfapyridine-sodium, monohydrate, dms kilo 16.55 - 17.65
Sulfathiazole, NF X, powd., dms. kilo. 5.50 - 5.85
microcrystals, dms. kilo. 6.25 - 6.60
Sulfathiazole-sodium, NF X, dms., 1,000-lb lots or more lb 2.35 - —
Sulfur, coml flour, bgs., mines, 100 lbs. 2.45 - —
bbls., mines 100 lbs 3.30 - —
lump, bgs., mines 100 lbs 2.35 - —
bbls., mines 100 lbs 2.90 - —
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines long-ton 23.50 - —
Export, f.o.b. vessels Gulf ports long-ton 25.00 - —
US and Canada f.o.b vessels Gulf ports long-ton 25.00 - —
Domestic dark sulfur prices are $1 per long-ton lower
Sulfur, crude, bulk, imp., Mexican, filtered, f.o.b., vessel, Coatzacoalcos long-ton 24.00 - —
Mexican dark sulfur price is $1 per long-ton lower
Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.15 - —
bbls., mines 100 lbs. 6.50 - —
flour, light, bgs., mines 100 lbs. 4.75 - —
bbls., mines 100 lbs. 5.75 - —
lump bgs., mines 100 lbs. 4.45 - —
rolls, bgs., mines 100 lbs. 5.00 - —
bbls., mines 100 lbs. 5.75 - —
salt block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —
Sulfur, rubbermakers, coml., reg., bgs., mines 100 lbs. 2.55 - —
bbls., mines 100 lbs. 3.80 - —
98-100%, passing through 325 mesh, bgs., mines 100 lbs. 2.65 - —
bbls., mines 100 lbs. 3.90 - —
refd., bgs., mines 100 lbs. 4.40 - —
bbls., mines 100 lbs. 5.55 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.85 - —
bbls., mines 100 lbs. 4.10 - —
Sulfur dichloride, ret, dms. c.l., works, frt. equald lb. .04½ - —
ret, dms., l.c.l., same basis lb. .05¼ - —
tanks, same basis lb. .04 - —
Sulfur dioxide, liq., coml., cyls., works, frt. equald lb. .10 - .12
multi-unit cars, works lb. .0535 - —
tanks, works lb. .045 - —
Refrigeration, 150-lb. cyls., dlvd. lb. .33 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .04½ - —
dms., l.c.l., same basis lb. .05¼ - —
tanks, same basis lb. .04 - —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
cbys., l.c.l., works 100 lbs. 2.30 - —
tanks, works ton. 18.60 - —
66° Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l., works 100 lbs. 2.55 - 3.35
tanks, works ton. 22.35 - —
98%, tanks, works ton. 23.50 - —
99-100%, tanks, works ton. 23.95 - —
Sulfuric acid, CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾ - —
consumers' cbys., l.c.l., same basis lb. .14¼ - .14¾
5-pt. bots., extra, cs., c.l., works, frt. alld lb. .16¼ - —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾ - .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton. 25.00 - —
40%, tanks, works ton. 29.00 - —
65%, tanks, works ton. 39.50 - —
Superphosphate, run-of-pile, under 22% a.p.a., pulv., bulk., c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret., N. J. unit-ton. .90 - .93
bulk, f.o.b., vessel unit-ton. 1.02 - —
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla unit-ton. .93 - —
Sweet birch oil, USP, northern, cns. lb. 4.00 - 9.50
USP, southern, cns. lb. 2.00 - 3.05

T

2,4,5-T, dms., c.l., works, frt. equald, lb. 1.18 - —
dms., l.c.l., same basis lb. 1.25 - —
2,4,5-T isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb. 1.29 - —
Talc, dom., fibrous, New York, grd., bgs., c.l., works ton. 28.00 - —
bgs., l.c.l., works ton. 31.00 - 36.00
fibrous, New York, 99.5%, 325 mesh bgs., c.l., works, ton. 31.00 - —
bgs., l.c.l., works ton. 34.00 - —
99.95% micronized, bgs., works, ton. 38.00 - —
ord., Calif., grad., bgs., c.l., works ton. 34.00 - 39.50
Vermont, off-color, grd., bgs., c.l., works ton. 19.40 - —
bgs., l.c.l., works ton. 37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton. 20.00 - 35.00
Tall oil, crude, dms., c.l., works lb. .04¼ - .04⅛
tanks, works lb. .02¾ - .03
Dist., dms., c.l., works lb. .07¾ - —
dms., l.c.l., works lb. .08 - .08¼
tanks, works lb. .06 - .06½
Refd., dms., c.l., works lb. .06¾ - —
dms., l.c.l., works lb. .07 - .07½
tanks, works lb. .05½ - .06
Tall oil acids, dms., c.l., works lb. .10½ - .12
dms., l.c.l. lb. .11 - .12½
tanks, works lb. .08½ - .10
Tall pitch, dms., c.l., works ton. 50.00 - 70.00
tanks, works ton. 40.00 - —
Tallow, edible, tanks, dlvd. lb. .08¼ - —
inedible, fancy, bleachable, tanks, dlvd lb. .07¼ - .07⅜
fancy, guaranteed, dms., f.a.s. lb. .08¾ - —
No. 1, tanks dlvd. lb. .06¾ - .06⅞
prime, tanks, dlvd. lb. .07 - .07⅛
special, tanks, dlvd. lb. .06⅞ - .07
sulfonated, 25%, bbls., l.c.l lb. .08⅝ - .09⅛
50%, bbls., l.c.l. lb. .10⅝ - .10⅞
Tallow acids, dist., dms lb. .14¼ - .16¾
tanks lb. .11¾ - —
Hydrogenated, dms. lb. .15¾ - .18¼
Tallow oil, acidless, dms., c.l lb. .14½ - —
dms., l.c.l. lb. .15½ - .17
Tangerine oil, Florida, dms. lb. 2.90 - 3.50
Tankage, animal, feeding, 9-11% ammonia, New York bulk unit-ton. 7.00 - —
Animal, feeding, 9-11% ammonia, Chicago, bulk unit-ton. 8.00 - 8.25
Tannic acid, NF, fluffy, bbls, 1,000-lb lots lb 2.05 - —
bbls., smaller lots lb. 2.06 - 2.10
Powd., bbls., 1,000-lb lots lb. 1.95 - —
bbls., smaller lots lb. 1.96 - 2.01
Tech., dms. lb. 1.05 - —
Tansy oil, dms. lb 7.50 - 9.50
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .53½ - —
dms., l.c.l., same basis gal. .55½ - —
tanks, same basis gal. .43½ - —
25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis gal. .62 - —
tanks, same basis gal. .50 - —
50-53%, dms., c.l., same basis gal. .75 - —
dms., l.c.l., same basis gal. .77 - —
tanks, same basis gal. .65 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, dom., NF, 230 or 250-lb. dms., c.l lb. .49 - —
230 or 250-lb dms., 10,000-lb. lots, 1 shipt lb. .49½ - —
230 or 250-lb. dms., smaller lots lb. .50 - —
100-lb. dms. lb. .51 - —
Imp., NF, bgs., dms., kgs lb. .40 - .44
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. .70 - —
Terpineol, extra, dms. lb. .41 - .70
Prime, dms. lb. .30 - .45
Terpinyl acetate, extra, cbs., dms. lb. .64 - .75
Prime, dms. lb. .53 - .56
Terpinyl propionate, dms. lb. 1.75 - 3.00
Terra alba (see Gypsum).
Testosterone, USP, bots. gram. No prices.
Testosterone proprionate, USP, gram. No prices.
Tetrachloroethane, dms., works lb. .14½ - —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½ - —
dms., l.c.l., works lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 - —
dms., l.c.l., dlvd. E. lb. .61½ - —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½ - —
dms., l.c.l., dlvd. E. lb. .55 - —
tanks, dlvd. E. lb. .51 - —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½ - —
dms., l.c.l., or l.t.l., works lb. .37 - —
tanks, works lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .34½ - —
dms., l.c.l., Memphis, Tenn lb. .35½ - —
dms., c.l., t.l., Newark, N. J. lb. .36½ - —
dms., l.c.l., Newark, N. J. lb. .37½ - —
lb. .37½ - —
tanks, dlvd. E. of Denver lb. .34 - —
tanks, dlvd. W. of Denver lb. .35 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd. lb. 7.50 - 10.00
Thallium sulfate, 99%, bots., dlvd. lb. 5.00 - 10.00

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Theobromine, NF, fib. dms.	lb.	4.50	—
Theobromine and sodium acetate, USP, fib. dms	lb.	4.75	—
Theobromine sodio-salicylate, NF, fib. dms	lb.	3.90	—
Theophyline, anhyd. sr USP, 100-lb. dms	lb.	3.65	—
Thiamine hydrochloride, USP, reg., fib. dms	kilo.	36.00	—
USP, ampule grade, fib. dms.	kilo.	38.00	—
Thiamine mononitrate, USP, fib. dms	kilo.	36.00	—
Thiocarbanilide, dms., ton lots	lb.	.72	—
dms., less ton lots	lb.	.74	—
Thiodiphenylamine (see Phenothiazine).			
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works	lb.	5.20	—
Tungstated, PTMA, kgs., works.	lb.	6.20	—
Thioglycolic acid, refd., cbys., 100% basis	lb.	1.35	1.55
Thiosalicylic acid, purif., dms., 1,000-lb., lots, works	lb.	4.00	—
Thiourea, tech., bgs., t.l., frt. alld.	lb.	.30	—
bgs., ton lots, same basis	lb.	.32	—
bgs., less than ton lots, same basis	lb.	.33	—
Thorium nitrate, purif., fib. dms., 100-lb. lots or more. works	lb.	3.50	—
dl-Threonine, bots., 1-kilo lots.	kilo.	275.00	—
Thyme leaves, French, bgs.	lb.	.34	—
Spanish, bgs.	lb.	.14	—
Thyme oil, NF, red, cns., dms	lb.	2.00	2.25
USP, white, cns.	lb.	2.20	2.60
Tech., white, cns.	lb.	.40	1.85
Thymol, fib. dms.	lb.	2.60	3.00
Thymol iodide, NF, dms.	lb.	7.30	—
Timbo root (see Cube root).			
Tin chloride (see Stannous chloride, anhyd.).			
Tin crystals (see Stannous chloride, hydrous).			
Tin metal (straits)	lb.	1.02½-	—
Tin oxide (see Stannic oxide).			
Tin sulfate (see Stannous sulfate).			
Tin tetrachloride, anhyd. (see Stannic chloride anhyd.).			
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd	lb.	.25½-	—
bgs., l.c.l., dlvd	lb.	.26½-	—
reg., bgs., c.l., dlvd	lb.	.25½-	—
bgs., l.c.l., dlvd	lb.	.26½-	—
Titanium dioxide, anatase, metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla.	ton.	180.00	—
bgs., 5-ton lots, Niagara, Falls, N.Y	ton.	205.00	—
bgs., ton lots, same basis.	ton.	215.00	—
Milled metallurgical titanium dioxide $7.50 per ton higher.			
Titanium dioxide, rutile, non-chalking, bgs., c.l., dlvd. E.	lb.	.27½-	—
bgs., l.c.l., dlvd. E	lb.	.28½-	—
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd	lb.	.09⅜-	—
bgs., l.c.l., works	lb.	.09⅞-	—
80% Ti O_2, high-tinting, dms. c.l.	lb.	.14⅜-	—
dms., l.c.l.	lb.	.14⅞-	—
Titanium hydride, powd., dms., works	lb.	8.10	9.00
Titanium tetrachloride, tech., dms., c.l., works	lb.	.26	—
dms., l.c.l., works	lb.	.27½-	.29
tanks, works	lb.	.20	—
Tobias acid, dms., c.l., t.l.	lb.	.78	—
dms., l.c.l.	lb.	.81	—
d-a-Tocopherols, mixed, NF, conc., pure basis, bots.	kilo.	67.00	—
di-a- Tocopherol, bots.	kilo.	99.00	—
d-a-Tocopheryl acetate, NF, conc., pure basis, bots	kilo.	122.00	—
d-a-Tocopheryl acid succinate, cryst., bots.	kilo.	109.00	—
dl-a-Tocopheryl acetate, bots.	kilo.	90.00	—
25% dry, powd., bots.	kilo.	22.50	-24.00
33⅓% dry, powd., bots.	kilo.	30.00	-31.50
o-Tolidine base, dry, kgs., 100% basis	lb.	1.55	—
Paste, kgs., 100% basis	lb.	1.50	—

Toluol

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine hydrochloride, paste, kgs., 100% basis	lb.	1.50	—
Tolu balsam, cns.	lb.	3.10	4.35
Toluene coaltar indust., or nitration, tanks, dlvd. E. of Rockies	gal.	.25	—
Toluene, petroleum, indust., tanks, dlvd. E. of Rockies	gal.	.25	.32
p-Toluenesulfonamide, powd., dms., t.l., works	lb.	.60	—
dms., l.t.l., same basis	lb.	.63	—
Toluenesulfonic acid, dms., c.l., t.l., works	lb.	.17	—
dms., l.c.l., works	lb.	.18	—
p-Toluenesulfonic acid monohydrate, dms., c.l. or t.l.	lb.	.90	—
dms., 125 lbs. to t.l.	lb.	1.00	—
m-Toluidine, dms., c.l., works, frt. alld	lb.	.79	—
dms., l.c.l., same basis	lb.	.80	—
tanks, same basis	lb.	.78	—
o-Toluidine, dms., c.l., works, frt. alld	lb.	.30	—
dms., l.c.l., same basis	lb.	.31	—
tanks, same basis	lb.	.28	—
p-Toluidine, tech., flake, dms., frt. alld	lb.	.50	—
Cast, dms., frt. alld	lb.	.45	—
p-Toluidine-m-sulfonic acid, bbls., works	lb.	.92	1.04
Toluidine, red toner, deep shades, kgs., works	lb.	1.70	—
Light shades, kgs., works	lb.	1.70	—
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld	lb.	1.10	—
Tonka beans, Angostura, cks.	lb.	No prices.	
Brazilian, Surinam, cs.	lb.	1.35	—
Totaquine 100-oz. lots, cns.	oz.	.42	—
Toxaphene, dms., c.l., t.l., works.	lb.	.22	—
dms., l.c.l., t.t.l., works	lb.	.28	—
Tragacanth gum, No. 1, ribbons, cs	lb	3.50	4.50
No. 2, cs.	lb.	3.40	—
No. 3, cs.	lb.	3.00	3.10
USP, powd., bbls.	lb.	1.25	1.30
Triacetin, dms., c.l., dlvd. E. of Rockies	lb.	.39	—
dms., l.c.l., same basis.	lb.	.40	—
tanks, same basis.	lb.	.37	—
Triallylamine, dms., c.l., dlvd.	lb.	.985	—
dms., l.c.l., dlvd.	lb.	.995	—
tanks, dlvd.	lb.	.96	—
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver.	lb.	.42½-	—
non-ret. dms., l.c.l., frt. alld. E. of Denver	lb.	.43½-	—
tanks, frt. alld. E. of Denver	lb.	.40	—
Tributyl phosphate, dms., c.l., works.	lb.	.52½-	—
dms., l.c.l., same basis.	lb.	.53½-	—
tanks, same basis.	lb.	.50	—
Tributylamine, dms., c.l., works	lb.	.67½-	—
dms., l.c.l., same basis	lb.	.69	—
tanks, same basis.	lb.	.65	—
Trichloroacetic acid, bots.	lb.	2.00	2.50
Trichlorobenzene, dms., c.l., frt. alld. E	lb.	.15	—
dms., l.c.l., frt. alld. E.	lb.	.16	—
tanks, frt. alld. E.	lb.	.13¼-	—
Trichlorobenzene prices in the West 1¼c. higher.			
1,1,1-Trichloroethane, dms., c.l., dlvd.	lb.	.13¾-	—
dms., l.c.l., dlvd.	lb.	.16¾-	—
tanks, dlvd.	lb.	.12¾-	—
1,1,2-Trichloroethane, dms., c.l., works	lb.	.13½-	—
dms., l.c.l., dlvd. E.	lb.	.14¼-	—
tanks, works	lb.	.11½-	—
Trichloroethylene, dms., c.l., or t.l., works, frt. equald	lb.	.13	—
dms., l.c.l., frt. alld.	lb.	.15	.16¾
tanks, works, frt. equald.	lb.	.12	—
Trichlorophenoxyacetic acid (see 2,4,5-T).			
Tricholine citrate, 65% soln., ret. cbys., works, frt. adjusted.	lb.	1.40	1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd.	lb.	.38	—
dms., l.c.l., dlvd.	lb.	.36	—
tanks, dlvd.	lb.	.32½-	—
Tricresyl phosphate, petroleum, dms., c.l., dlvd.	lb.	.34½-	—
dms., l.c.l., dlvd.	lb.	.35½-	—
tanks, dlvd.	lb.	.32½-	—
Tridecyl alcohol, mixed isomers, dms., dlvd	lb.	.26¼-	—
dms., l.c.l., dlvd.	lb.	.28	—
Triethanolamine, dms., c.l., dlvd. E.	lb.	.24½-	—
dms., l.c.l., same basis	lb.	.26	—
tanks, same basis	lb.	.22	—
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld	lb.	.24	—
dms., l.t.l., frt. alld.	lb.	.25	—
tanks, frt. alld.	lb.	.23	—
Triethylamine, dms., c.l., dlvd. E.	lb.	.50	—
dms., l.c.l., same basis	lb.	.51½-	—
tanks, same basis	lb.	.47½-	—
Triethyl citrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver	lb.	.46¼-	—
non-ret. dms., l.c.l., frt. alld. E. of Denver	lb.	.47¼-	—
tanks, frt. alld. E. of Denver	lb.	.43¾-	—
Triethyl phosphate, dms., c.l., dlvd.	lb.	.40½-	—
dms., l.c.l., dlvd.	lb.	.41½-	—
tanks, dlvd.	lb.	.38	—
Triethylene glycol, dms., c.l., dlvd. E	lb.	.21	—
dms., l.c.l., dlvd. E.	lb.	.22½-	—
tanks, same basis	lb.	.18½-	—
Triethylenetetramine, dms., c.l., dlvd. E.	lb.	.51½-	—
dms., l.c.l., dlvd. E.	lb.	.53	—
tanks, dlvd. E.	lb.	.49	—
Tri-isopropanolamine, dms., c.l., dlvd. E.	lb.	.23¼-	—
dms., l.c.l., dlvd. E.	lb.	.24¾-	—
tanks, dlvd. E.	lb.	.20¾-	—
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis	lb.	.30	.305
tanks, same basis	lb.	.26	—
25-40% soln., dms., c.l., works, frt. equald, 100% basis	lb.	.35	—
dms., l.c.l., works, frt. equald., 100% basis	lb.	.35½-	—
tanks, works, frt. equald, 100% basis	lb.	.26	—
Trioxane, pure, dms., c.l., t.l., works.	lb.	.50	—
dms., l.c.l., works	lb.	.51½-	—
Tripentaerythritol, c.l., t.l., dlvd. E.	lb.	.38	—
bgs., l.c.l., t.t.l., dlvd. E.	lb.	.39	—
Triphenyl phosphate, bbls., c.l., frt equald	lb.	.41½-	—
bbls., l.c.l., frt. equald	lb.	.43½-	—
Triphenylguanidine, bbls., works.	lb.	.90	—
tanks, same basis	lb.	.18½-	—
Tripropylene glycol, dms., c.l., t.l., frt. alld. E	lb.	.21	—
dms., l.c.l., t.t.l., frt. alld. E	lb.	.22	—
tankcars and compartmented tankcars, frt. alld. E	lb.	.18½-	—
tankwagons and compartmented tankwagons, 1,000 gals., min. frt. alld. E	lb.	.19	—
Tripropylene glycol prices 1c. per lb. higher in West.			
Trisodium phosphate (see Sodium phosphate tribasic).			
dl-Tryptophane, fib., dms., works.	lb.	55.00	—

INSIDE SCIENCE

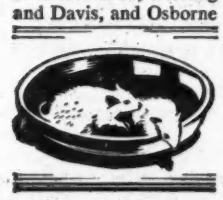
New Expanded Edition

The Vital Story of VITAMIN A

by Science Writer

THE "FIRST" VITAMIN

Vitamin A was probably the first to be discovered. As early as 1909 Hopkins and Stepp found that certain fat-soluble substances were necessary for the growth of mice and rats. Between 1913 and 1915, working independently, the teams of McCollum and Davis, and Osborne and Mendel revealed the existence of a fat-soluble fraction in butter, egg yolk and cod-liver oil, which was essential for the growth of laboratory animals. McCollum and Davis concluded that the unknown substance was organic in nature. They had, in effect, discovered vitamin A, even though they did not so name it.



An interesting point: McCollum and Davis noted that the word "vitamine," coined by Casimir Funk a year or so previously, might be used to describe the growth factor they had found. Subsequently, McCollum (and Kennedy) reversed this opinion and suggested that the unknown substances which induced growth be called *fat-soluble A* and *water-soluble B*. In their opinion these phrases better described the unknown factor. Casimir Funk disagreed, however, pointing out that, to be truly descriptive, the phrases should read *growth-promoting fat-soluble A*, etc. This obviously being cumbersome, Funk suggested the designations: vitamine A, vitamine B, and so on. These (with the final "e" omitted) are now firmly embedded in the language.

Other investigators worked on the problem of carotene, beginning in 1831 when Wackenroder isolated that substance from carrots. We shall see later how vitamin A and the carotenes, particularly beta carotene, are interrelated.

TRACKED DOWN

Various tries at isolating vitamin A were made in the 1920s. Investigators in Japan and England attempted without success to extract the elusive vitamin from cod-liver oil.

After establishing the structural formula of beta carotene, Paul Karrer of Switzerland turned his attention to vitamin A. He and his colleagues, using halibut-liver oil (which has a much higher potency than cod-liver oil) succeeded in determining the structure of the vitamin A molecule in 1931.

WHAT IT IS

Pure vitamin A crystals are pale yellow in color. They are soluble in fat and in fat solvents but not in water. The chemist's formula is $C_{20}H_{30}O$, expressing the vitamin's composition of carbon, hydrogen, and oxygen. Beta carotene has the formula $C_{40}H_{56}$.

Vitamin A is stable to light and heat, but is destroyed by oxidation and ultraviolet light.

Two vitamins A have been discovered. Vitamin A_1 occurs in animal products such as egg yolk, liver, butter, and in the livers of salt water fish. Vitamin A_2 is found in fresh-water fish livers.

As now used by pharmaceutical and food manufacturers, vitamin A is in liquid form — in solution in edible, vegetable oil — or in dry granular form in which tiny droplets of the liquid vitamin are encased in a dry, edible material.

ACTION

Human beings receive their vitamin A from many sources. They eat vegetable foods rich in beta carotene (a provitamin A) which is then converted by the body into a vitamin. They eat animal products which contain the vitamin. They eat processed foods which are fortified with beta carotene or vitamin A or both. They use pharmaceutical preparations of the vitamin, with or without other vitamins, for therapeutic or protective effect.

The liver has been found to be the main storage site of vitamin A. It is also lodged in the kidneys, lungs, adrenal glands, and body fat.

It is believed that provitamins A are converted to the vitamin in the intestinal wall, the liver, and other parts of the body through the action of the enzyme called carotenase.

Vitamin A is absorbed primarily in the healthy intestine and is carried in the lymph and blood to the body's storage depots.

HOW MUCH DO WE NEED?

According to the Food and Nutrition Board of the National Academy of Science — National Research Council, in its 1958 publication #589, vitamin A is needed daily (in various amounts depending on age and sex) to maintain good nutrition of healthy persons in the U. S. A. The following table expresses the Board's recommendations in International Units of the vitamin.

NATIONAL RESEARCH COUNCIL RECOMMENDATIONS FOR DAILY VITAMIN A INTAKE

Men (all ages)	5,000	Children (1–3 years)	2,000
Women (all ages)	5,000	Children (4–6 years)	2,500
Women (pregnant, second half)	6,000	Children (7–9 years)	3,500
Women (lactating)	8,000	Children (10–12 years)	4,500
Infants (2–6 months)	1,500	Boys (13–19 years)	5,000
Infants (7–12 months)	1,500	Girls (13–19 years)	5,000

The Food & Drug Administration of the U. S. Department of Health, Education and Welfare has set the following standards as being the *minimum* daily requirement. In other words, these amounts are the *least* which can be ingested to prevent recognizable signs of deficiency disease from developing. There is an opinion among nutrition experts that the *minimum* amount of a vitamin is not necessarily the best criterion.

F. & D. A. *MINIMUM* DAILY REQUIREMENTS OF VITAMIN A

(Measurements in U. S. Pharmacopeia (U.S.P.) units which equal International Units)

Men and Women	4,000	Children (1–11 years)	3,000
Adolescents (12–19 years)	4,000	Infants (to 1 year)	1,500

Tung oil, dms., c.l., New York lb. .22½ - —
dms., l.c.l., New York lb. .22¾ - .23
tanks, New York lb. .21 - —
tanks, domestic mills lb. .20¾ - .21
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 3.54 - —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb. 2.15 Nom.
dms., smaller lots, works lb. 2.30 Nom.
Turkey red, bbls., works lb. .62 - —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb. .28 - .50
Tuscan red, bbls., frt. equald. lb. .26 - .32
Tyrothricin, USP, bots. gram. .54 - .57

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies lb. .35 - .39½
Ultramarine blue, jobbing types, bbls., same basis lb. .19 - —
Regular types, dry bbls., same basis lb. .22½ - .35
Ultramarine blue prices 1c higher W of Rockies
Umber pigment, burnt, American, bgs., c.l., works lb. .07½ - .07¾
bgs., l.c.l., works lb. .07¾ - .08
Turkey-type, bgs., c.l. Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N Y lb. .08¼ - —
Umber pigment, raw American, bgs., works lb. .07¾ - .08¼
Turkey-type, bgs., works lb. .08¼ - .08¾
Undecylenic acid, dms. lb. 1.45 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E. ton.125.00 - —
bgs., l.c.l., dlvd. E. ex whse. ton.145.00 - —
45% N, agricultural, bgs., c.l., (30 tons) dlvd. E. ton.103.00 - —
Urea-ammonia liquor, A, B, C, & F grades, N basis, tanks, frt. equal ton.120.00 - —
37 grade, tanks, same basis ton.145.00 - —
Urethane, USP, dms., t.l., f.o.b., works lb. .65 - —
dms., l.c.l., same basis lb. .70 - —
Uva-ursi leaves, bls. lb. .17 - .19

V

Valerian root, Belgian, bgs. lb. .35 - —
Indian, bgs. lb. .29 - —
dl-Valine, dms., works lb.21.00 - 27.50
Vanadium pentoxide, tech., dms., works lb 1.28 - 1.33
Vandyke brown, bbls., works lb .09½ - .12
Vanilla beans, Bourbon, tins lb.11.25 - 12.00
Mexican, cuts, tins lb.11.00 - 11.50
whole, tins lb.11.50 - 12.00
Tahiti, cs. lb. 8.00 - —
Vanillin, ex lignin, 100-lb fib dms., 1,000-lb lots or more lb 3.00 - —
100-lb fib dms., 500-lb lots lb 3.10 - —
100-lb fib dms., 100-lb lots lb 3.25 - —
Venetian red, jobbing, bgs., works, lb. .0475- —
20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 - —
35%, bgs., works lb. .0625- —
40%, bgs., works lb. .0675- —
Vetiver oil, Bourbon, cns. lb.12.00 - 14.50
Haitian, cns. lb.12.00 - 12.50
Victoria blue, toner, molybdated, PMA, 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .20 - —
55-gal. dms., l.c.l., dlvd. lb. .21½ - —
tanks, dlvd. lb. .17½ - —
tanktrucks less than 4,000 gal., dlvd lb. .18 - —
Zone 2, 55-gal. dms., c.l., dlvd lb. .21 - —
55-gal. dms., l.c.l., dlvd. lb. .24 - —
tanks, dlvd. lb. .18½ - —
tanktrucks, less than 4,000 gals., dlvd lb. .19 - —
Zone 1 is all continental U. S. except Zone 2. Zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 - —
Vinyl chloride monomer, tanks, works lb. .12½ - —
Vinyl ether, tech., dms., c.l., works. lb. .28 - —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25 - —
Vinyl ether, USP, anesthesia, bots., 50cc., hospitals bot. 1.12 - —
bots., 75cc., hospitals bot. 1.56 - —
Vinyl ethyl ether, tech., dms., c.l., works lb. .29¼ - —
dms., l.c.l., works lb. .30 - —
tanks, works lb. .27¼ - —
Vinyl methyl ether, cyls., works lb. .30 - —
Cylinders are sold outright, or if shipped against deposit, a free period of sixty days is allowed; and if empties are returned prepaid and in good condition within that period full refund is made.
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. 47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.20 - —
1 to 9 dms., works lb. 1.35 - —
tanks, works lb. 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., works. lb. .16½ - —
dms., l.c.l., same basis lb. .18½ - —
tanks, f.o.b., dest., frt. prepaid lb. .14 - —
Viosterol, in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02½ - —
Virginia type red, bbls., works lb. 1.40 - —
Vitamin A acetate, syn., cryst., beads 500,000 A units per gram gram .07¼ - —
dry, 500,000 units per gram, kilo lots kilo.67.50 - —
325,000 units per gram, same basis kilo.43.88 - —
Vitamin A acetate, syn., dry, 250,000 units per gram, same basis kilo.33.75 - —
Dry vitamin A acetate in less than kilo lots, $2.50 per kilo higher in all potencies.
Vitamin A, liq. in oil, 1,000,000 A units per gram, 1,000,000 units .10 - —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .10 - —
Liq. in oil, 1,000,000 A units per gram 1,000,000 units. 10 - —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP, 1-50 grams, vials, tins gram.163.00 - —
1% vitamin B_{12}, adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms gram. 1.93 - —
Vitamin B_{12}, oral grade solids, in containers of 1 and 10 grams of B_{12} activity gram.150.00 - —
0.1 percent trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo.188.00 - —
Vitamin B_{12}, 1% vitamin B_{12} oral grade solids, adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms gram. 1.55 - —
Vitamin C (see Ascorbic acid).
Vitamin D (see Codliver and Fish-liver oils, Calciferol and Viosterol).
Vitamin D_2, dry, 850,000 units per gram, kilo lots kilo.42.50 - —
850,000 units per gram, less than kilo lots kilo45.00 - —
Vitamin E (see a-Tocopherol and Wheat germ oil)
Vitamin G (see Riboflavin).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Vitamin K_1, 25 gram bots gram. 4.50 - —
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

W

Wahoo root bark, bls. lb. 2.10 - —
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 - —
dms., 25-49-lb. lots, New York or Chicago lb. 2.05 - —
Warfarin, 0.5%, cns., 5-24-lb. lots, New York or Chicago lb. 2.15 - —
Watchung-type reds, bbls. lb. 1.95 - —

Waxes

Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms gal.12.25 - —
Wheat starch (see Starch, wheat).
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls lb. .18 - .19
White precipitate, USP, powd., dms., lb. 6.55 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls lb .18 - —
Thin, rossed, bls. lb. .21 - —
Wintergreen oil, USP, nat., northern, cns lb 6.35 - 17.50
USP, nat., southern, cns. lb 3.75 - 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls. lb. .16 - .17
Witch hazel leaves, bls. lb. .22 - —
Wollastonite, fine, bgs., c.l., works. ton.39.50 - —
bgs., l.c.l., ex whse. ton.56.00 - —
Medium, bgs., c.l., works ton.27.00 - —
bgs., l.c.l., ex whse. ton.44.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat, crude (see Degras).
Woolfat, USP (see Lanolin).
Wormseed, Levant, bgs. lb. 4.25 - 4.50
Wormseed oil (see Chenopodium oil, NF).
Wormwood oil, cns. lb. 4.90 - 5.85

X

Xylene, coaltar, indust., tanks, works:
Bethlehem, Pa. gal. .29 - —
Birmingham dist. gal. .29 - —
Chicago dist. gal. .29 - —
Cleveland dist. gal. .29 - —
Geneva, Utah gal. .29 - —
Johnstown, Pa. gal. .29 - —
Lackawanna, N. Y. gal. .29½ - —
Lone Star, Tex. gal. .27 - —
Lorain, Ohio gal. .29 - —
Middletown, Ohio gal. .30 - —
Minnequa, Col. gal. .29 - —
Philadelphia dist. gal. .29 - —
Pittsburgh dist. gal. .29 - —
Sparrows Point, Md. gal .29 - —
Terre Haute, Ind. gal. .29 - —
Youngstown, Ohio gal. .29 - —
Xylene, petroleum, indust., tanks, f.o.b. works:
Bayonne, N. J. gal. .29 - —
Baytown, Tex. gal. .27 - —
Charleston, S. C. gal .29 - —

—Continued on page 41

The Vital Story of Vitamin A (continued)

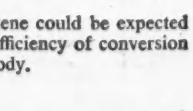
DEFICIENCIES AND MEDICAL USES

Correcting a vitamin A deficiency has little of the instant, dramatic impact that, for example, vitamin C has in curing scurvy.

Because of the body's ability to store quantities of vitamin A which are released as needed, a considerable time passes before the vitamin A deficiency develops.

Lack of enough vitamin A shows itself in several ways.

"Dark adaptation" of the eyes is diminished. Go from a brightly lighted place to one which is dim or dark; notice how your eyes need a few moments to adjust. This is known as *dark adaptation*. With vitamin A deficiency, the power of the eyes to make the adjustment quickly and completely is lessened, sometimes severely or dangerously.



The skin, too, becomes dry from lack of vitamin A. The linings of the hair follicles harden and become plugged, thus interfering with the secretion of the skin's oil glands.

Other epithelial tissues, such as the linings of the upper parts of the respiratory passages, the genito-urinary tract, the alimentary canal, may not function properly.

Vitamin A is necessary for growth. When children fail to gain weight a deficiency of the vitamin may be suspected.

Physicians treat the deficiency states with therapeutic doses of the vitamin. To prevent their development or recurrence they may prescribe supplementary dosages.

MICROGRAMS, U. S. P. UNITS, INTERNATIONAL UNITS

The measurement of vitamin A is made in *International Units* which may be abbreviated as I.U. or i.u.

One International Unit of vitamin A is equivalent to:

— 0.344 microgram of crystalline vitamin A acetate.
— 0.300 microgram of crystalline vitamin A alcohol.
— the activity of 0.6 microgram of pure beta carotene.
— one U. S. P. unit of vitamin A.

In everyday measurement, one ounce equals 94,500,000 International Units of vitamin A alcohol.

Vitamin A is available to pharmaceutical and food manufacturers in forms having standardized potencies as, for example, liquid products containing 1,000,000 units per gram or dry beadlets having 250,000 or 500,000 units per gram.

MEASURING VITAMIN A

The best known and most commonly used method of measuring vitamin A is the Carr-Price spectrometric assay. In this chemical test a measurable blue color appears when a reagent (antimony trichloride) is added to the vitamin. The so-called "blue value" when measured photometrically can be converted by a mathematical formula into International Units of vitamin A.

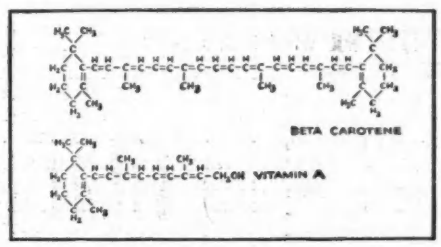
PROVITAMIN AND VITAMIN

The carotenes and vitamin A are known to be closely related. The former are known as precursors, or *provitamins*. It is one of nature's singular facts that the carotenes contain no vitamin A and yet have important vitamin A value. The body has a mechanism by which carotene is converted to vitamin A.

Four carotenoids: alpha-, beta-, and gamma carotene, and cryptoxanthin are known to be provitamins A. Of these, beta carotene is the most valuable in supplying the vitamin's value. The carotenes exist as colors in vegetable material. Example: carrots from which the word "carotene" was derived.

The chemical formulae of the carotenes show their relationship to vitamin A. This is demonstrated in the diagram that follows showing vitamin A and beta carotene.

Theoretically, one molecule of beta carotene could be expected to yield two of vitamin A. Actually this efficiency of conversion is not normally achieved in the human body.



GOOD SOURCES

Margarine, which has been fortified with vitamin A or with a combination of the vitamin and beta carotene (for safe coloring, plus nutritional value) supplies important amounts in our daily diet. Butter, too, can be a valuable source. It contains vitamin A in quantities which vary as the dairy cows' diet varies between seasons. Another good source of vitamin A is beef or calves' liver.

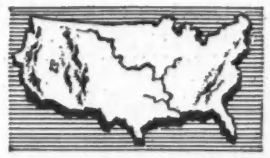
There are many foods which contribute vitamin A value through their supplies of the carotenes. Among these are apricots, beet greens, broccoli, carrots, kale, spinach, sweet potatoes, and turnip greens.

MOSTLY, IT'S MADE

After the chemical composition was determined by Paul Karrer and the product was crystallized by Holmes and Corbett, many attempts were made to synthesize the vitamin. The most successful, that of the Roche research team headed by Otto Isler, supplies a large portion of the world's requirements.

Vitamin A is also extracted from natural sources such as the liver of fish. Esthetically and practically, however, synthetic vitamin A has been found the most satisfactory for products used by human beings.

The U. S. production of synthetic (man-made) vitamin A is measured in tons. This huge annual production is enough to supply daily 170,000,000 people, the total population of the United States, with the 5000 international units (recommended by the National Research Council for daily adult intake) and still have enough synthetic vitamin A left over for use in animal feeds, pet foods, for export, etc. Of course, not everyone does receive his daily requirements through the medium of manufactured vitamin A. Yet, the *potential* is always there.



Pure beta carotene, so closely allied with vitamin A, also is man-made in large amounts for use in safely coloring and fortifying foods. Since it was first synthesized in Roche research laboratories, beta carotene Roche has been produced in ever-increasing quantities to meet the demands of the food industry for safe, sure, economical, yellow color with nutritional value as a bonus.

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Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

Founded October 18, 1871 by William O. Allison
Directed 1900-1942 by Harry J. Schnell
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ASSISTANT PUBLISHER: J. Stuart Auchincloss
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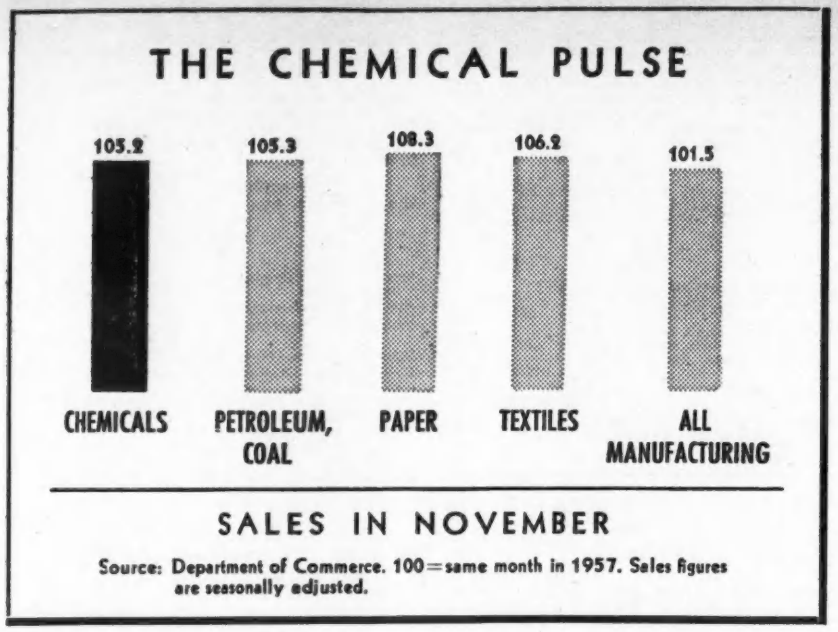
Volume 175 | February 16, 1959 | No. 7



Down-to-Earth Needs

There have been a number of happenings lately which make it quite emphatic that the nations of the free world—especially the United States—should more or less convert their competitive efforts in the communistic campaign to invade outer space throughout the universe to the humanistic promotion of the welfare of the peoples of the earth. There should be recognition of the fact that the practical value of man's qualifications, be they scientific or technical, financial or political, or whatsoever, derives from their being beneficially applied—a condition with which the communistic interplanetary and intercontinental policies, plans and practices have no relation.

One of the importantly significant incidents was the loss of a ship and almost a hundred human lives in a collision with an iceberg. Another was the death-dealing crashing of a late-type airplane in a failure to find the runway at a major landing field.

The iceberg incident, a repetition on a lesser scale of the Titanic disaster of almost a half-century earlier, casts a sad reflection on the progress in science and technology which has been so proudly proclaimed. It calls for serious thought and action on the actual efficiency of radar which has been specifically advocated for the detection of icebergs. Reports of the disaster had it that the ship involved was equipped with a radar detector system—but one qualified commenter said that the human factor was still the only reliable one. There is a question, of course, of whether the radar message was muffed. There is something to think about also in the fact that the vessel was supposed to have such a hull construction with such a number of strong-walled waterproof compartments that not enough water could get into the hold to cause sinking.

The fault behind the airplane crash has been laid to the failure of the landing port to have an efficient guiding-light system. But, because another plane of the same big new type got well mashed up, but without any loss of life, when its nose-wheel collapsed in a landing try, the aviation agency is reported to have taken measures to restrict the operating of the turbo-jet planes until adequate assurance of their safeness has been acquired. There is room for a lot of looking and doing with reference to aviation because of the many plane accidents in all classes and especially in the armed forces. No doubt, the human factor is a big one.

Bigness Is Not Badness

All business groups, industrial and commercial, are faced with an imperative necessity of keeping close tabs on every aspect of the federal government's newly launched antitrust crusade. The reason is that the action inaugurated in the automobile field and that purposed in steel are getting back to the old days when bigness was badness. The procedures are expected to depart from the recently utilized area of the Clayton act and to go along the lines of the original Sherman act, passed in 1890.

Because the whole group of so-called "antitrust" laws can be, and has been, interpreted into an almost unlimited field of applicability, no business can have any assurance that it will not be liable to attack if the new campaign gets going good and strong, with a deal of persuading and pushing by way of congressional probes. One angle of official interest is presented by the declaration that, in the automobile case, the target is the manufacturer's retail financing practice. Such an intention could go far and wide through all businesses which offer terms of payment to their customers.

There is more than a hint in that direction in the declared purpose in connection with probings to put an end to the pressuring of sellers for special prices on goods sold in big lots to big buyers. Because of the savings in selling cost and in handling and the gain from rapid turnover, it is a common practice to quote quantity prices which are lower than those in the general run of transactions. But, there again, the antiquated theory that bigness is badness has a big potentiality in harmfulness.

There is still another disturbing factor in connection with the fight against bigness. That is presented by the popularity in congress of proposals of governmental aid for small business. The promoters of such proposals can be expected to foster supplementary legislation designed to handicap the competitive advantages of full-sized progressive business.

Bigness is not of itself badness. But, such simple logic does not motivate opportunistic reformers. So, business must be keenly alert in respect of antitrust activities—also busy in appropriate public relations.

Labor Bills in Congress

Something that might, under ordinary conditions, be regarded as a promising move in the direction of necessary legislation having to do with labor matters can be seen in the progress reported in the construction of a new congressional bill for reform. But, that promise is not likely to reach the stage of performance. The corrective purposes of the bill do not find favor with labor leaders.

There are other proposals in the labor area now before congress, teamed up at least to some extent with the President's attitude toward inflation. Their objective is the setting up of new administrative machinery for dealing with the wage-price factor in inflationary trends.

It has been suggested, however, that the matter be not left wholly to politics but be taken up primarily at a joint parley of organized management and organized labor. That suggestion is based on the practice of industry-wide negotiating with organized labor which has been reported to have proved satisfactorily successful for a number of years in Scandinavia in enabling the individual members of an industry to reach a measure of equality in labor costs and in preventing labor groups from "playing off one enterprise against another."

Washington Talks It Over

Justice Department's Antitrust Drive Against General Motors Corporation and the Steel Industry May Well Have Some Very Nasty Implications for US Chemical Producers.

By Ralph L. Cherry
Washington Editor

The antitrust drive just launched by the Department of Justice against General Motors Corporation and planned against the steel industry contains angles that may be of direct concern to the chemical industry. Officials don't admit it in so many words, but "bigness" seems to be becoming more and more the compelling factor in bringing antitrust action.

The snipings and open attacks on industry for the past decade by the anti-monopolists in and out of congress have always had one aim in common—to show up the big corporations in their worst light and to make for softer competition for the little fellows. The attackers insisted that they were not opposing "bigness" as such, but the net result of their efforts were the same.

Because the chemical industry can count several giants among its members, it becomes vulnerable if the Department of Justice has decided on a policy of attacking corporations on the basis of size alone. There are some implications in the statement of Assistant Attorney General Hansen to the congressional economic committee that such a course of action may be in the cards.

He told the legislators that the department hopes to prevent mergers in new growth industries that would build up concentration. "By so doing," be observed, "we would avoid—a decade or so from now—that pattern of undue concentration which today plagues autos and steel." That statement comes pretty close to implying that he believes that bigness itself is illegal.

Mr. Hansen has support for attacking corporations on the basis of bigness, or undue concentration as the trust busters prefer to call it. They have the words of the supreme court that "size is, of course, an earmark of monopoly power." From such innocent statements as this from the court, an entire new line of government policy can, and often does, develop.

OPD'S BOOKSHELF

Practical Scale-Up

Richard Fleming has grouped the papers presented at the sixth annual symposium of the Philadelphia-Wilmington section of the American Institute of Chemical Engineers under the book title SCALE-UP IN PRACTICE.* Discussed are the use of pilot plants in scale-up, scale-up theory and its limitations, analog approaches to scale-up, pitfalls in scale-up, the business economics of plant scale-up and organizing for scale-up.

*SCALE-UP IN PRACTICE. Edited by Richard Fleming. 134 pages. Reinhold Publishing Corporation, New York. $4.50.

More on Syntheses

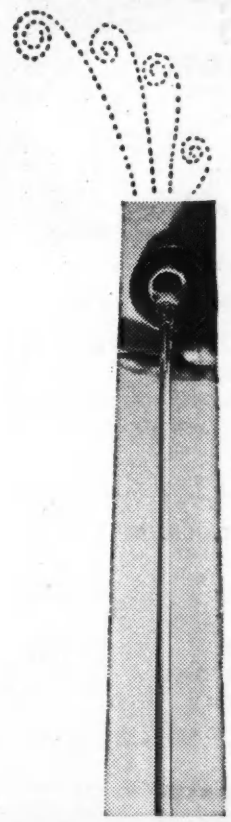
Here is the thirty-eighth volume in the series on ORGANIC SYNTHESES,* edited by John C. Sheehan. As the latest contribution from Organic Syntheses, Inc., the volume deals with the method of preparation of more than thirty organic compounds. Details are given on each chemical covered with respect to manufacturing procedure, notes on the process and methods of preparation. Such a volume is issued annually, covering procedures developed by chemists who submit these methods for publication to Organic Syntheses, Inc.

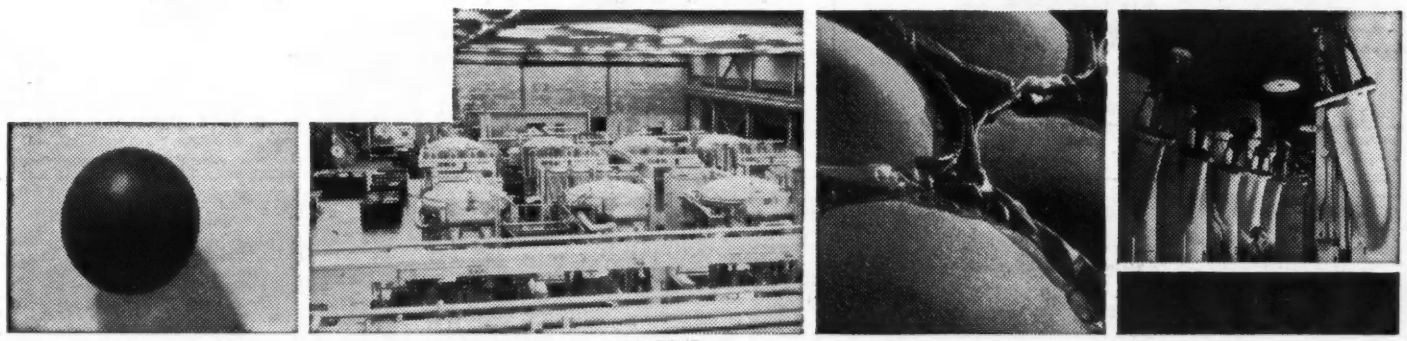
*ORGANIC SYNTHESES, VOLUME 38. Edited by John C. Sheehan. 120 pages. John Wiley & Sons, New York. $4.

Working With Finishes

George A. Soderberg and Paul W. Karcher in their little handbook RESTORING AND MAINTAINING FINISHES (SPOT FINISHING)* cover spot finishing technics acquired during forty-five years of experience. The subject matter is largely confined to furniture work.

*RESTORING AND MAINTAINING FINISHES (SPOT FINISHING). By George A. Soderberg and Paul W. Karcher. 88 pages. Bruce Publishing Company, Milwaukee, Wis. $2.75.





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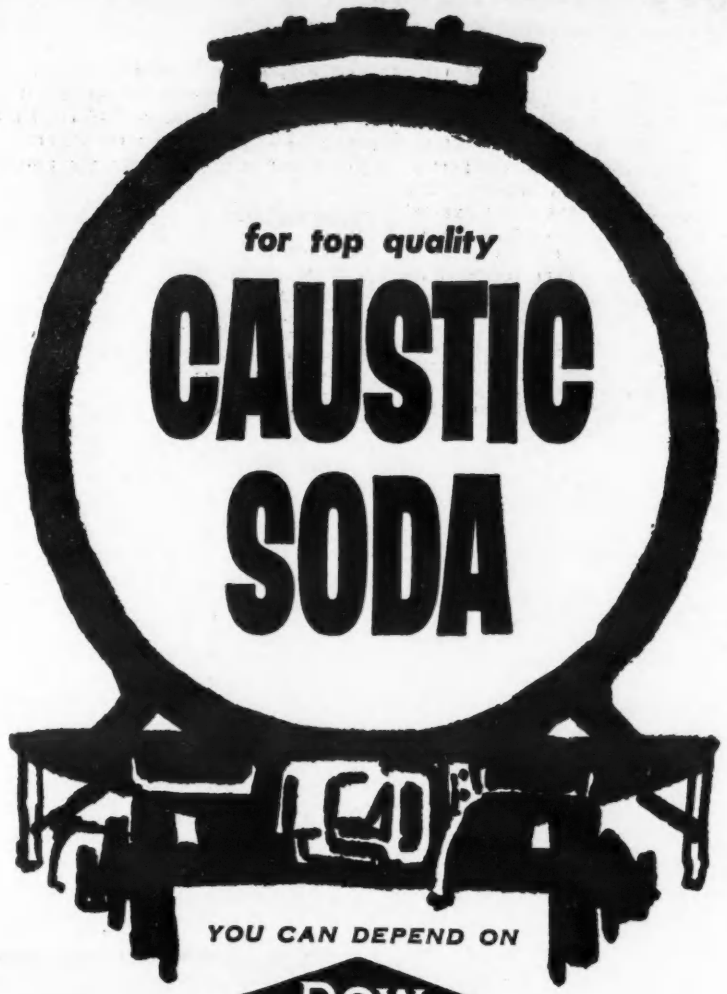

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Heavy Chemicals

Chemical business continues on the upswing, but attitudes regarding the future are mixed. Contributing to the present rise in demand for many chemicals is the improving rate of steel output. Yet, feeling is strong that steel production has been spurred by scare-buying due to threats of a steel strike next summer. Right now, as output goes up, so does unemployment. This is another uneasy factor on which observers are keeping a wary eye. The strike against a glass producer, which has gone on since early October, is on the verge of being settled. This is expected to cause a sizable increase in dense soda ash shipments.

While mineral acids are moving well in the direction of the steel industry, other end-uses are retarding any appreciable rise in sales levels. Fertilizer inquiry is expected to help nitric and sulfuric acids soon.

Sodium molybdate anhydrous was reduced last week. Other metallic salts were fairly quiet, with the exception of tin chemicals, which reflected firmness of the metal.

Copper sulfate took a beating in 1958, according to Bureau of Mines figures. Production was the lowest it has been in over ten years. Shipments were also well below the 1948-52 average.

Sulfur business is judged spotty at present. The industry hopes for a pick-up in demand during the second quarter.

The American Paper and Pulp Association reported production for the week ended February 7 at 87.3 percent of theoretical capacity as compared with the revised figure of 88.8 percent for the previous week, and 87.9 percent for the corresponding week of last year.

Price Trends

Advanced
None

Reduced
Lead, ½c. per lb.
Sodium molybdate, 4c. per lb.

Comparative Price Indexes
(1926-1940 average)

Last week	Prev. week	Last month	Feb. 14, 1958
105.89	105.89	105.92	104.58

For Current Prices see page 9

Acids

Hydrochloric — Rising steel production continues to help this market. Increased steel activity has spurred metal fabrication and finishing as well, accounting for increased amounts of acid.

Right now, petroleum operations are said to be below expectations for this time of year. Use of hydrochloric acid by the petroleum industry, some observers note, normally accounts for about 25 percent of production.

Hydrofluoric — Most noteworthy pick-up in demand for this acid is coming from the stainless steel industry at present.

Reports on petroleum refining activity are mixed, and as a result, hydrofluoric moving in the direction of alkylation appears spotty.

Fluorinated organics are moving along at a good rate, owing in large part to the steady expansion of the aerosol propellent industry.

Nitric — Industrial demand, including that for use in stainless steel manufacture, continues to improve. Other end uses, notably in fertilizer, are expected to pick up in the near future.

Sulfuric—The steel industry continues to account for good volmues of acid. Rayon production is reported improving, although its requirements for sulfuric are not rising appreciably at present.

Steel production last week rose to an estimated 2,363,000 tons, or 83.5 percent of capacity from the previous week's 2,288,000 tons, or 80.8 percent of capacity, according to the American Iron and Steel Institute. The previous week's output was the highest since mid-April, 1957.

Bases and Salts

Calcium Chloride—While some producers report they are still catching up on a backlog of orders, others indicate that business has slowed to some extent.

In any event, during the next few weeks, demand is expected to decline as needs for cold weather concrete and highway de-icing diminish.

Caustic Soda — There is not much change in this market. Demand continues to show a moderate upswing, although there is no spectacular increase to report.

Chlorine—Producers are still waiting for definite signs of improvement. Demand has climbed modestly during the past few weeks, they point out, but so far, the market has maintained an unhurried pace.

Copper Sulfate—Price is steadily maintained at the higher level established the previous week. Production of copper sulfate in 1958 took a real beating, according to figures from the Bureau of Mines.

Output for the year declined sharply, to 48,552 tons from 1957's output of 70,680 tons, and was the lowest since at least before 1948 (1948-1952 average output was 92,896 tons annually).

Shipments were also the lowest since prior to 1948, declining to 46,580 tons in 1958 from 70,256 tons in 1957. (The 1948-52 average was 93,106 tons).

Production in December of 3,748 tons declined 19 percent from November's 4,640 tons. Shipments of 2,948 tons plummeted 35 percent from November's 4,540 tons.

Stocks rose 15 percent, to 5,176 tons in December from 4,484 tons in November, as shipments were 800 tons less than otuput in the last month of the year. At the December shipment rate, stocks were adequate for two months' requirements.

Lime—Domestic open-market sales declined to 692,703 tons in November from 773,175 tons in October, but were higher than November, 1957, sales of 690,490 tons, according to the Bureau of Mines.

Chemical and industrial sales slipped to 426,193 tons in November from 456,066 tons in October, but were higher than the 419,639 tons sold in November, 1957.

Refractory (dead-burned dolomite) sales were off to 167,696 tons in November from 205,457 tons in October.

Sales of chemical and industrial lime during the period January-November, 1958 were well over a half million tons below sales for the comparable period in 1957.

During the first eleven months of '58, some 4,369,000 tons were sold for chemical and industrial purposes, as against a total of 1,005,991 tons sold during the corresponding period of the previous year.

Saltcake—Market for this material continues to gain strength, following a period during late December and early January during which sales to paper mills were adversely affected by the year-end slack period.

Silicofluorides — Prices appear firm at present levels. Producers report there is no back-up of material at present. This indicates to them that demand is steady, about in line with production.

Soda Ash—The strike at the plants of a glass producer is reportedly on the verge of settlement, and soda ash shipments in that direction are expected to rise.

Other glass plants have been trying to take up the slack, but the removal of a large chunk of glass output from the market has caused a slowdown in automobile production.

Sodium Molybdate—A producer reduced the price of sodium molybdate by 4c. per pound last week. Molybdate is newly quoted at 92c. per pound, drums, f.o.b. works.

Sulfur—Business is regarded as spotty at present, and producers concede that demand hasn't lived up to expectations so far this year.

They point out that while the steel industry has been of considerable help to demand, other end uses, particularly in

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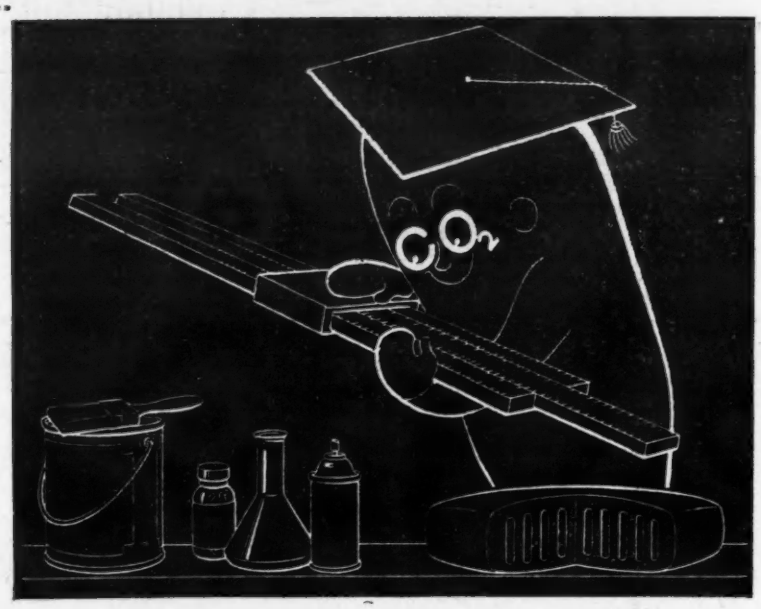

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Heavy Chemicals

the petroleum and fertilizer fields, have not shown strong development.

Generally, a better second quarter is anticipated, and industry observers cite three general reasons:

- Heavier demand for use in fertilizer.
- Stronger trends in petroleum.
- Opening of navigation on the Great Lakes.
- Continued strong sales efforts by Sulphur Export Corporation.

Nonferrous Metals

Aluminum—Domestic output in October of 139,836 tons was 12 percent above September's 124,724 tons, according to the Bureau of Mines.

At the close of October, it was estimated that the industry was operating at approximately 80 percent of capacity, indicating an upward trend from the recession of the first three quarters.

Domestic consumption of purchased aluminum-base scrap in October was 40,207 tons, 9,300 tons more than in September. Remelt ingot output climbed by 3,500 tons, totaling 24,905 tons.

Nonintegrated group of secondary smelters used 77 percent (30,995 tons) of the 40,207 tons reported consumed in October. Primary producers used 16 percent (6,548 tons), and foundries, fabricators and other consumers 7 percent (2,664 tons).

Calculated metal recovery totaled 32,513 tons; 24,859 tons from new scrap and 7,654 tons from old scrap. It is estimated that full industry coverage in October would show scrap industry consumption of 47,000 tons and ingot output of 29,000 tons.

Copper—Buying interest remained active even at the higher primary producers' price of 30c. per pound, delivered US destinations.

The government has halted exports of copper to the Soviet bloc. The ruling goes into effect February 20.

Lead—Market was weaker on the domestic front as Canadian interests declined fractionally on pressure from the world market. Pig lead was listed last week at 11½c. per pound, New York and 11.3c. per pound, St. Louis basis.

Mercury—Market was easy, and metal remained listed at $218 to $223 per flask, spot, last week.

Silver—Bullion was quoted at 90⅜c. per troy ounce, spot, on Friday, unchanged.

Tin—Straits metal remained strong, quoted Friday at $1.02⅛ per pound, spot.

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Current Market Quotations

—Continued from page 35

Xylene, petroleum, indust., tanks, f.o.b. works:			
Chicago, Ill.	gal.	.30	—
Houston, Tex.	gal.	.27	—
Philadelphia, Pa.	gal.	.29	—
Providence, R. I.	gal.	.30	—
Sewell's Point, Va.	gal.	.28	—
Wood River, Ill.	gal.	.29	—
Xylenol, cryst., 45°-47° C., m.p., dms., l.c.l., works	lb.	.23	—
56°-58° C., m.p., dms., l.c.l., works, frt. equald	lb.	.33	—
60°-62° C., m.p., dms., l.c.l., same basis	lb.	.40	—
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis	gal.	1.25	—
dms., l.c.l., same basis	gal.	1.30	—
tanks, same basis	gal.	1.05	—
Xylenol fraction, b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis	gal.	1.35	—
dms., l.c.l., same basis	gal.	1.40	—
tanks, same basis	gal.	1.15	—
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works	lb.	.39	—
dms., l.c.l., same basis	lb.	.40	—
tanks, same basis	lb.	.38	—

Xylol

Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns.	lb.	2.15	3.05
Yeast, brewers, debittered, USP, Saccharomyces dlvd	lb.	.27	—
Yeast, brewers, dry, USP, 50 Int'l B units per gram, 100-lb. dms	lb.	.47	—
50 Int'l B units per gram, 100-lb. dms	lb.	.52	—
USP, 200 Int'l B units per gram, 100-lb. dms	lb.	.56	—
300 Int'l B units per gram, 100-lb dms	lb.	.60	—
Yerba santa, USP, dlvd	lb.	.18	—
Yerba santa leaves, bls	lb	.40	.42
Ylang-ylang oil, Bourbon, bots	lb.	19.00	25.00

Yellow Pigments

Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

Ylang-ylang oil, Bourbon, extra, bots	lb.	28.00	40.00
Madagascar, bots.	lb.	No Stocks.	
Yohimbine hydrochloride, bots., tins.	oz.	4.75	5.25

Z

Zein, bgs., 36,000-lb. lots or more, bgs., 500-lb lots or more, dlvd.	lb.	.343	—
bgs., smaller lots, dlvd	lb.	.373	—
Zinc acetate, NF, VIII, dms.	lb.	.53	—
Tech., dms., l.t.l., works	lb.	.29¾	—
Zinc borate, bgs., 1,000 lbs or more, works	lb.	.23	—
bgs. less than 1,000 lbs. same basis	lb.	.25	—
Zinc chloride, NF, gran., dms	lb.	.42	—
Precip., powd., dms	lb.	.26	—
Soln 50%, dms., c.l., works, 100 lbs.		5.80	—
dms., l.c.l., works	100 lbs.	6.40	—
tanks, works	100 lbs.	5.15	—
tech., fused, dms., c.l., works 100 lbs.		10.70	—
dms., l.c.l., works	100 lbs.	11.20	—
gran., fib dms., c.l., works. 100 lbs.		11.45	—
fib dms., l.c.l., works	100 lbs.	11.95	—
Zinc chromate, bbls., dlvd.	lb.	.29	—
Basic, bbls., dlvd.	lb.	.34	—
Zinc cyanide, dms., 1,000-lb. lots or more, works	lb.	.55	—
dms., smaller lots, works	lb.	.57	—
Zinc dust, coml., bbls., c.l., works.	lb.	.1510-	—
Pigment, bbls., c.l., works	lb.	.15½-	—
bbls., l.c.l., works	lb.	.16½-	—
Zinc fluoride, bbls., works	lb.	.49	.50
Zinc hydrosulfite, dms., c.l., frt. alld	lb.	.21½-	—
dms., l.c.l., frt. alld.	lb.	.23½-	—
Zinc metal, prime western, slabs, E. St Louis	lb.	.11	—
Prime western, slabs, New York.	lb.	.11½-	—
Zinc naphthenate, liq., 8% Zn., dms., frt. alld	lb.	.27	—
10% Zn., dms., frt. alld	lb.	.33	—
Zinc nitrate, tech., cryst., bbls., works	lb.	.20	—
Zinc oxide pigment, American process, lead-free, bgs., c.l., frt. alld	lb.	.14½-	—
bgs., l.c.l., same basis	lb.	.15½-	—
leaded, 35%, bgs., c.l., mills, frt. alld	lb.	.15½-	—
bgs., l.c.l., same basis	lb.	.16½-	—
50% bgs., c.l., same basis	lb.	.15⅝-	—
bgs., l.c.l., same basis	lb.	.16⅝-	—
Zinc oxide pigment, French process, green seal, bgs., c.l., mills, frt. alld.	lb.	.16¼-	—
bgs., l.c.l., same basis	lb.	.17¼-	—
red seal, bgs., c.l., same basis,	lb.	.15¼-	—
bgs., l.c.l., same basis	lb.	.16¼-	—
white seal, bgs., c.l., same basis,	lb.	.16¾-	—
bgs., l.c.l., same basis	lb.	.17¾-	—
USP, ctns., c.l., frt. alld.	lb.	.17¼-	—
ctns., l.c.l., same basis	lb.	.18¼-	—
Zinc oxide, Pac. Coast prices 1c. higher.			
Zinc phenolsulfonate, NF, gran., dms	lb.	.45	.46
NF, powd., dms	lb.	.48	.49
Zinc resinate, precip., 7.2-7.6% Zn., dms., frt. alld	lb.	.36¼-	—
Zinc silicofluoride, dms., works	lb.	.12½-	.14
Zinc stearate, tech., USP, ctns., c.l.,	lb.	.41	—
Zinc sulfate, powd., monohydrate, ctns., l.c.l.	lb.	.43	.46
36% Zn., bgs., c.l., dlvd. E 100 lbs.		8.75	—
bgs., l.c.l., dlvd. E 100 lbs.		9.75	—
USP, gran., dms.	lb.	.26	—
Zinc sulfate in bbls. 40c. higher.			
Zinc sulfide, pure, bgs., c.l., dlvd	lb.	.2530-	—
Zinc undecylenate, dms.	lb.	2.00	—
Zinc yellow (see Zinc chromate).			
Zinc-ammonium chloride, bgs., c.l., works 100 lbs.		10.25	—
bbls, c.l., works	100 lbs.	10.85	—
bbls., l.c.l., works	100 lbs.	11.35	—
Zinc-formaldehyde sulfoxylate, basic, 300-lb. dms., frt. alld	lb.	.26	—
normal, 250-lb. dms., frt. alld	lb.	.52	—
Zircon (G), gran., bgs., c.l., works, lb.		.03¼-	—
bgs., 5 tons to c.l., works	lb.	.03⅜-	—
Zircon (G), gran., bgs., 1 ton to 9,999-lb. lots, works	lb.	.04	—
bgs., smaller lots, works	lb.	.06¼-	—
Zircon (G), milled, bgs., c.l., works. lb.		.04½-	—
bgs., 5 tons to c.l., works	lb.	.04⅝-	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04⅝-	—
bgs., 500-1,999-lb. lots, works	lb.	.07½-	—
Zircon (G) in barrels 1c. higher.			
Zirconium acetate, soln., 13% ZrO_2, dms., c.l., 30,000 lbs. min., works	lb.	.23	—
Zirconium hydride, powd., electronic grade, dms., works	lb.	14.00	15.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works	lb.	1.50	—
Electric-fused, lump, bgs., 500 to 1,999-lb. lots, works	lb.	.45½-	—
bgs., smaller lots, works	lb.	.48	—
milled, bgs., c.l., works	lb.	.59	—
bgs., 5-ton lots, works	lb.	.59½-	—
bgs., 1-ton to 9,999-lb. lots, works	lb.	.60	—
bgs., 500 to 1,999-lb. lots., works	lb.	.60½-	—
bgs., smaller lots, works	lb.	.63	—
Glass polishing grade, 94-97% ZrO_2, bgs., works	lb.	.55	.65
Opacifier grade, 85-90% ZrO_2, bgs.,	lb.	.27	.50
Stabilized oxide, 91% ZrO_2, milled, bgs	lb.	.62	.85
Zirconium oxychioride, cryst., ctns., 5-ton lots, works	lb.	.35½-	—

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Obituaries

Dr. Paul Muhlethaler

Dr. Paul Muhlethaler, president of Tombarel Products, Inc., New York, died February 6 in Summit, N. J. He was fifty-nine years old.

Dr. Muhlethaler was a member of the Society of Cosmetic Chemists and the Society of French Perfumers.

John Logan Ashbaugh, an administrative supervisor in the New York office of Standard Oil Company (New Jersey), died February 7 in Summit, N. J. He was thirty-seven years old and had been with the firm twelve years.

Leo A. Behrendt, vice-president of Joseph Dixon Crucible Company, Jersey City, N. J., died February 11 in Hawaii. He was sixty-two years old.

Walter Davis, formerly a laboratory technician for Metals Disintegrating Company, Union, N. J., died February 10 in Brooklyn, N. Y.

Dr. Seth Gregory, a former president of Minerals & Chemicals Corporation of America, died February 8 in New York. He was ninety-eight years old. Dr. Gregory joined the firm in 1916 when it was incorporated as Minerals Separation North American Corporation.

Charles F. Mulloy, president of Ellicott Drug Company, Buffalo, N. Y., died February 8 in that city. He was sixty-five years old and had headed the firm since 1956.

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Agricultural Chemicals

Bids to supply India with its fertilizer requirements for the new planting season are being readvertised by the General Services Administration because of changes in specifications. All bids received by the agency last December under invitation FM-4F-A-11-25-58 have been cancelled. The totals being sought are the same as before: 35,000 metric tons of ammonium sulfate (or 16,772 metric tons of urea, or 36,968 metric tons of calcium-ammonium nitrate) and 2,000 metric tons of ammonium nitrate. Offers should be submitted by 3:30 p.m. February 26 to the Federal Supply Service, General Services Administration, Washington 25, D.C.

The second purchase of 17,500,000 pounds of 75 percent wettable DDT powder for the WHO anti-malaria program reported in this column a week ago brought the total taken by the government for this year to 44,500,000 pounds. Additional purchases are not expected to be made unless funds are appropriated. Buying interest in pesticides was reported more active, though actual business was confined to immediate requirements.

Fewer boll weevils took cover in woods trash near cotton fields this winter than last in seven cotton-producing states, namely—North Carolina, South Carolina, Virginia, Mississippi, Tennessee and Louisiana, according to a survey by the Department of Agriculture. The number that survives the winter, combined with weather conditions during the early part of the cotton fruiting period, will determine this insect's potential for damage to the 1959 cotton crop. Lowest average counts for an area were found in south Georgia—145 weevils per acre—and highest in northeastern Louisiana—5,756 per acre.

Weed control research is a pressing need to achieve efficient production of soybeans, peanuts, flax, sesame, safflower and other oilseed crops, according to the Department of Agriculture's Oilseeds and Peanut Research and Marketing Advisory Committee. Basis and applied research should be done, according to committee members, on weed-crop relationships involving preemergence chemical treatments; to develop the best herbicide rotation, and to develop the best uses of herbicides in combination with cultural, crop rotation, and biological control methods.

Price Trends

Advanced

Bone meal, $2.50 per ton.

Reduced

None

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	Feb. 14, 1958
112.42	112.18	112.30	108.72

For Current Prices see page 9

Animal and Plant Foods

Animal Proteins—Steady tone prevailed in tankage market. Offers were light and closely held at $7 per unit tons bulk, New York and $8, Chicago. Dried blood also was steady and maintained at $7.25 per unit ton, New York and $7.75 per unit ton, Chicago. Bonemeal was stronger and sold up to $70 per ton, f.o.b. works, East, the highest price paid during the past four years. Offers were scarce as production was sold up. Hoofmeal was unchanged at $6.75 per unit ton, Chicago.

Weak tone continued in imported fish meal. Offers were reduced $2 per ton due to slow demand. Prompt shipments were available at $158 per ton, port of entry. Domestic meal also was quiet, but light stocks were maintained at $162 per ton, f.o.b. works, Atlantic coast. Fish scrap was scarce and available at $158 per ton, same basis.

Lime—Sales of agricultural quicklime during November were smaller than October and sharply lower than November 1957 it was reported by the Bureau of Census. Sales in November totaled 3,619 short tons compared with 4,953 in October and 11,624 in November 1957. Volume of business for the January-November 1958 period amounted to 49,999 short tons against 80,211 during the same period in 1957.

Hydrated agricultural lime sales also were off in November totaling 5,332 short tons against 8,040 in October and 6,787 in November 1957. Sales amounted to 111,339 short tons during January-November 1958 inclusive compared with 131,587 during the same period in 1957.

Domestic sales of open market lime in November declined to 692,703 short tons compared with 773,175 in October and 690,490 in November 1957. Total sales during January-November 1958 were 7,017,443 short tons against 8,340,313 for the like period in 1957.

Superphosphate—Production of superphosphate and other phosphatic fertilizers during November in the United States amounted to 208,823 short tons (100 percent A.P.A.), compared with November, 1957 output of 207,990 short tons. Shipments of superphosphate and other phosphatic fertilizers during the month totaled 122,534 short tons, or a decrease of 1 percent from the volume shipped during November last year. Stocks held by producing plants as of November 30, 1958, totaled 356,491 short tons, or 11 percent more than on October 31, 1958. These monthly figures (including percentage changes) are unadjusted for seasonal variation and number of working days.

Production of normal and enriched superphosphate, 100 percent APA was placed at 113,014 short tons in November by the Census Bureau compared with 117,407 (revised) in October and 114,515 in November, 1957. Stocks at producing plants at the end of November amounted to 174,753 short tons against 166,588 (revised) in October and 199,273 in November 1957.

Output of the concentrated grade, 100 percent APA totaled 72,845 short tons in November against 65,894 in October and 73,598 in November, 1957. Stocks at producing plants at the end of November amounted to 151,973 short tons compared with 130,590 (revised in October and 150,933 in November, 1957.

Ammonium phosphates output in November were reported at 13,577 short tons during November, compared with 14,412 in October and 13,757 in November, 1957. Stocks at producing plants at the end of November were indicated at 20,419 short tons against 17,404 in October and 14,387 in November, 1957.

Farm Chemicals Exports: November

Following are data compiled by the Census Bureau indicating volume of exports of agricultural chemicals for November and October. Superphosphate is classified as normal when a.p.a. is less than 25 percent, concentrated when a.p.a. is 25 percent or more. The term tons refers to short tons.

EXPORTS		*November*	*October*
Ammonia, anhydrous and aqua	lbs.	11,995,721	5,507,352
Ammonium nitrate	lbs.	28,263,299	37,045,455
Ammonium sulfate	lbs.	58,339,493	83,073,927
DDT, technical	lbs.	1,823,379	1,929,856
Insecticides, fungicides and agricultural sulfur	lbs.	5,906,277	10,115,648
Phosphate rock	tons	220,196	244,761
Potassium chloride	tons	48,608	26,944
Sodium nitrate, n.e.c.	lbs.	240,080	825,380
Superhosphate, normal	tons	24,366	30,043
Concentrated	tons	17,777	25,899
Urea fertilizers	lbs.	28,263,299	6,048,800
Herbicides	lbs.	896,931	775,974

OPD'S TRADE NAME CHEMICALS MARKET REPORT ON PAGE 44

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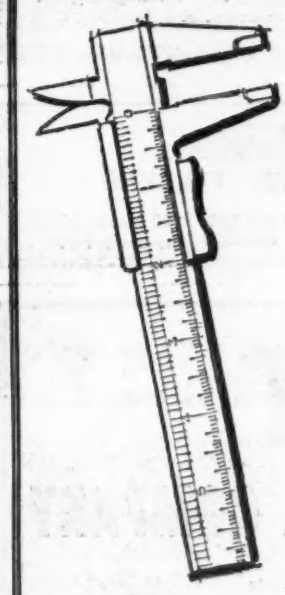

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Details of radioactive isotopes and labeled compounds have been listed to stimulate interest in this field.

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Technological progress in food preservation has come a long way. When modern canning was developed on a practical basis the biggest step forward in food preservation history was made. In recent years electrical, mechanical cold storage and transportation were made economically feasible. This was the second big step. The third big step is now underway with such processes as high energy partical electron irradiation, and the use of chemical antioxidants, chemical bacteriostats, antibiotics and the like. These chemical methods supplement and work in conjunction with other methods at all stages of food preparation from production to marketing.

Antifoaming agents serve all varieties of industries on both manufacturing and finished product levels where the prevention of froth and foam are desired. There are several types available each designed to fulfill a particular function most efficiently.

Chemically processed oils are vegetable or animal oils, usually of the unsaturated type, which are heat-treated, chemically treated, or both. They are designed to produce an intermediate raw material designed to give special properties to the products in which they are incorporated.

Amylolytic and proteolytic enzymes are in strong demand, particularly in the textile, paper and glue industries. They are used as well in food for clarification work, and in cosmetics and dentifrice products to cut down on germ activity.

Chemical Coverage Shifts

A number of chemicals formerly covered in OPD's Textile & Leather Chemicals market report have been shifted to other sections of the paper.

Now to be found in the **Heavy Chemicals** market columns are: Aluminum acetate, aluminum formate, ammonium bichromate, chromium acetate, hydrogen peroxide, potassium bichromate, potassium chromate, sodium acetate (technical grade), sodium bichromate, sodium chromate, sodium diacetate, sodium ferrocyanide, sodium formate, sodium hydrosulfite, sodium perborate, sodium peroxide, sodium-zirconyl sulfate, zinc hydrosulfite and zirconium acetate.

Copper quinolinolate is now being covered in **Coatings Materials.** The **Aliphatic Organics** market section is now reporting on corn dextrin, corn sugar, sodium-formaldehyde sulfoxylate and zinc-formaldehyde sulfoxylate.

Antifoaming Agents

Antifoaming agents are used in the food industry, the textile industry, the paper, the oil and other industries. Foam can often times be an enemy which cuts productive capacity by causing waste space in process equipment, dictating processing time, wasting material and possibly causing fire.

Dow Corning Corporation markets **"Antifoam A,"** which the company finds useful in processing materials ranging from adhesives and asphalt to wines, yeast and zeins. It is utilized also in the manufacture of polishes, rubber latexes, waxes, paper, textiles, soaps, detergents, and a variety of chemicals.

According to the company, **"Antifoam A"** is tasteless and physiologically harmless; it is colorless and translucent. It can be dispersed in a range of solvents, but is insoluble in water, lower alcohols, glycols and glycerine.

A stable dispersion of Dow Corning's **"Antifoam A"** is its **"Antifoam AF Emulsion." "Antifoam AF Emulsion,"** white in color and having the consistency of thick cream, is an oil-in-water emulsion containing 30 percent **"Antifoam A."** Among the many applications, **"Antifoam AF Emulsion"** is used to control foam in the production of antibiotics, foods, adhesives, antifreeze, latex paints, paper sizing and viscose. It is effective in aqueous systems at low concentrations and is rapidly dispersed.

Another company to offer silicone emulsion antifoaming agents is Apex Chemical Company. **"Defoamer No. 58"** is a milky white silicone emulsion defoamer that Apex says disperses readily without pasting. **"Defoamer No. 750"** is a clear active antifoaming solution based on silicone.

Arnold, Hoffman & Co. markets a series of antifoaming agents under the name of **"AHCO Defoamer 69, 97, 116, 477."** All of them are creamy white, water dispersable, homogenous pastes. They are said to be applicable for use in paper coating mixes containing such substances as latexes, starch, casein, pulp colors, metallic stearates or various pigments. The **"AHCO Defoamers"** are recommended as defoamers in paper systems to be used at the headbox or in the beaters.

Antibacterials, Fungicides

Bacterial spoilage of food generally is the most important in economic losses to the farmer, food processor and consumer. Spoilage caused by bacteria also creates a serious health hazard to the consumer. A third spoilage process is connected with the presence of yeast and molds.

Two food bacteriostats marketed by Chas. Pfizer & Co. are **"Sorbitat"** and **"Sorbitat-K." "Sorbitat,"** Pfizer's sorbic acid, is an unsaturated fatty acid that has proved to be a selective growth inhibitor for various molds and yeasts due to its unsaturated fatty acid structure. Pfizer says that **"Sorbitat"** should not be used to reduce existing mold or yeast contamination, but to retard their further development.

Because sorbic acid is not readily soluble in water Pfizer offers **"Sorbitat-K."** This product is the powdered potassium salt of sorbic acid, an unsaturated fatty acid ester. **"Sorbitat-K"** is also a good growth inhibitor for yeasts, molds and bacteria. Being readily water-soluble, it is used in food applications such as dips, sprays or concentrates for metering purposes.

The price of **"Sorbitat"** and **"Sorbitak-K"** is listed at $2.455 per pound, carlots, f.o.b. shipping point.

Heyden Newport Chemical Corporation markets the **"Parasepts,"** neutral esters of p-hydroxybenzoic acid. Heyden states that they are active in acid, neutral or alkaline media and are non-toxic. The **"Parasepts"** are available in a purified or technical grade of the methyl, ethyl, propyl or butyl esters. The technical grade is used chiefly in industrial applications for preserving glues, gum solutions, shoe polishes, photographic and other emulsions and for stabilizing products liable to bacterial or fungal deterioration.

The **"Parasepts"** are white, fine powders without color, taste and almost entirely odorless. They are non-toxic, stable, compatible, non-volatile and effective in low

—Continued on page 60

Here's What's Reported On in This Section

Though coverage in the Trade Name Chemicals & Specialties market report encompasses twenty classes of chemicals, only a few of them are mentioned in this issue. Here's the entire list:

Adhesives, antibacterials and fungicides, antifoaming agents, antioxidants, antistatic agents, blowing agents, catalysts and accelerators, chelating agents, chemically processed oils, emulsions and latexes, enzymes, fatty acid derivatives, feed supplements, filtering materials, ion exchange resins, surfactants, synthetic waxes, textile chemicals, thickening and suspending agents, and ultraviolet absorbers.

If you have suggestions for any additional materals that might be included in this section, write OIL, PAINT AND DRUG REPORTER's Technical Editor, 30 Church street, New York 7.

Essential Oils, Aromatics

Added strength at origin continued to be cause for a firmer tone in spot lemongrass and citronella oil markets. However, at this point, comfortable inventories on the latter oil are a bar to development of a sustained uptrend, sources said. Another firm spot in the essential oils picture included lemon oil. Prices were well held and some dealers felt higher listings were in the offing. Spot listings on amyris oil were fully maintained. An unsettled political situation in Haiti has had a strengthening effect in this market as well as in the vetiver oil market. Recent arrivals of sandalwood oil have moved readily into consuming channels, according to reports last week. Some dealers have discontinued quoting on the item temporarily, due to shortage of stocks. Shipments now afloat will supplement stocks somewhat, sources said.

Clove leaf oil was firm as a result of financial adjustments in Madagascar. Tangerine oil was in a firm price position. California and Florida orange oils have steadied at lower levels after sharp reductions in recent weeks. With new crop Florida material being processed, lower prices could be expected, it was said.

In aromatic chemicals markets, citral derived added firmness from the uptrend in lemongrass oil. Methyl salicylate was moving in fair volume at previously reported levels. Vanillin market was likewise steady and unchanged, sources said.

A trade source recently reported revised schedules on musk ketone and ambrette. The reduction was a move to bring listings more in line with established market levels. Basic producers reported no change in previously reported prices and anticipated none.

A United Nations Commission advised Far Eastern countries to raise their exports of spices. It was said that world markets could absorb more pepper, cardamom, cinnamon, turmeric, ginger, nutmeg and mace. Improved methods of cultivation, enlarged acreage, and introduction of mechanized equipment were among suggestions offered by the Economic Commission for Asia and the Far East for the bolstering of spice markets. It was pointed out that previous to World War II, a region made up of Borneo, Ceylon, Cambodia, Malaya, Thailand, India, Indonesia and Sarawak, supplied 83,200 tons of pepper to world markets. From 1947-49, the average was 38,200 tons, and did not approximate pre-war levels until 1956 when 83,800 tons were shipped. In 1957 the total dropped to a scant 10,300 tons.

Price Trends

Advanced

Dillseed, Indian, 1c. per lb.
Ginger, Cochin, 1c. per lb.
Pepper, black, Lampong, 2c. per lb.
Malabar, 2½c.
Sarawak, 1½c.
red, Hontaka, 1c. per lb.
white, Muntok, 2c. per lb.

Reduced

Cassia, Korintje, "B," ½c. per lb.
"C," ½c. per lb.
Padang, "B," ½c. per lb.
"C," ½c. per lb.
Cinnamon, "0000," 2c. per lb.
Nutmegs, W. I., 5c. per lb.
Paprika, Spanish, 1c. per lb.
Pepper, red, Funtuas, 1c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Feb. 14, 1958
147.43	147.45	148.07	145.69

For Current Prices see page 9

Essential Oils

Amyris—The market has continued to move upward as a result of higher quotations at source. Demand has been moderate in the face of rising prices. Price was quoted in a range of $1.35 to $1.75 per pound, according to report of major dealers contacted in the trade last week.

Bergamot—This oil was firmly quoted at $13 to $14 per pound, according to report from major dealers contacted last week. A continued small crop in recent years has kept prices high. An increase in price by the Consortium last fall put further upward pressure on the spot market. To make the increase more acceptable to consumers, it was announced that bergamot oil would contain at least 40% ester.

Bois de Rose—The market continued to mark time. Prices have remained stable at low levels and no further declines were expected. Sources said the price gap between Brazilian and Peruvian oils has narrowed to a differential which approximates the difference in yield obtained in the conversion of these oils to linalool and linalyl esters.

Citronella—Spot markets remained soft. However, a firming influence at origin has been evident in the market during recent weeks. The stronger tone was felt to be primarily a result of uncertainty concerning the amount of material that would be thrown on the market from the Chinese mainland. Some sources have reported that the Chinese were not offering for the first quarter. Thus, better support in Formosa from European consumers, may have strengthened shippers' prices for citronella coming to the United States. Production has outpaced demand for many months though, and sources here felt any genuine strengthening in the overall market picture would have to await a further significant reduction in inventories. It was also pointed out that early projections for this year indicate a Formosa production of approximately 500,000 pounds more than the four million pounds turned out last year.

Clove Leaf—A decidedly firmer tone has been noted in this market during the past two weeks. Price was strong at $1 per pound, according to report of sources in the trade contacted last week. The uptrend in the market was felt to be a result, not so much as a result of marked increase in demand, as from a readjustment of financial structure in Madagascar. Spot prices ranged from $1 to $1.50 per pound.

In some quarters, sources had feared that the heavy distillation months of January through March would serve to further depress prices. However, prices never did go as low in December of 1958 as was the case in the comparable month of 1957. Further advances in spot prices were a distinct possibility, sources said.

Geranium—A light supply situation has continued to cause an upward trend in this oil at any sign of increased buying interest on the spot market. The general tone of the market remained strong all during 1958. Destructive cyclones and heavy rainfall which destroyed the main crop kept supplies from reaching a balance with a brisk demand. While most other oils were having a rough time of it, this material enjoyed brisk demand and fully maintained price levels.

The trend in recent years has been steadily upward and although there have been periods of softness, prices have never weakened enough to reverse the overall upward tendency. Carryover of the 1957 crop was small and heavy damage to the crop last year brought the same situation into effect this year. Whether the continued high prices would stimulate additional production, and whether continued good demand would carry throughout 1959 were the pertinent questions in this market, sources said.

Lemon—Prices were holding firm and some trade sources felt higher prices were in the offing. Buying was brisk as consumers were covering against requirements.

Orange—Prices for Florida and California orange oils held steady at previously reported levels. The market continued to mark time as new crop Florida oil was being processed. With the arrival of this new material sources expected lower prices. This factor kept buying activity to a minimum. Small lots moving were for immediate need, it was said.

The price has held to a plateau in recent weeks after a steady decline in late December and during January. Sources felt a good replacement supply this year would see a further easing in prices. It was pointed out that listings were still a good 4½c. to 5½c. per pound above quotations in effect prior to the heavy weather

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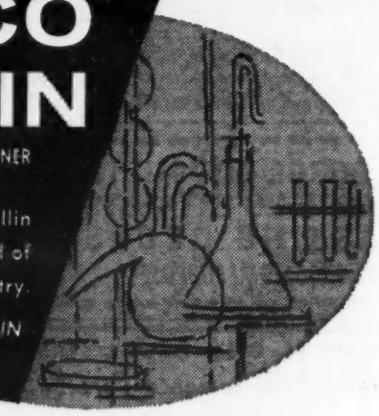

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Essential Oils

at the beginning of 1958 which drove prices to very high levels.

Peppermint—Dealers maintained previous quotations, although a long supply situation has contributed a weakening influence to the market, it was said. Columbia River natural peppermint oil was priced at $3.90 per pound and Michigan natural was $5.50 per pound. Price on Columbia River redistilled was $4.25 per pound as compared to $5.85 per pound for Michigan redistilled. Triple distilled peppermint oil was quoted at $6.25 per pound.

Sandalwood—Recent arrivals were moving directly into consuming channels, according to last week's trade reports. The upward trend in this market has continued in evidence as a result of light supplies and a fairly active demand. Some dealers have discontinued quoting on this oil temporarily. Shipments afloat should supplement depleted stocks, sources said.

Aromatic Chemicals

Citral—This market continued to derive strength from the upturn in lemongrass oil which has been noticeable in the past few weeks. Prices were firmer all along the line. It remained to be seen what amount of oil would be available from Chinese sources this year. Lemongrass shipping quotations in India have been very firm, it was said. Guatemala has made strenuous efforts to stay in the market. Demand has been fairly active, according to reports of last week.

Methyl Salicylate — Withdrawals have remained routine. There was a tapering off in volume moving to flavoring outlets, while consumers who use this material as a masking agent were coming through with steady orders, sources said. Market remained highly competitive. Truckload price was listed at 60¼c. per pound.

Musk—A trade source recently reported revised schedules on musk ambrette and ketone which brought listings more in line with established market prices. Basic suppliers prices were unchanged and steady at previously reported levels.

Vanillin—The market has not changed appreciably from last report. Price was steady at previously reported levels. Withdrawals were steady at routine levels.

Seeds and Spices

Cassia—Recent arrivals were moving slowly into consuming channels under slightly better demand. The supply picture was balanced. Prices moved down fractionally on "B" and "C" grades.

Paprika—Market on paprika remained firm, although listings on Spanish grades have eased somewhat, sources said. The supply picture remains clouded.

Pepper—Strength in India caused spot prices to move upward. The upward tendency was felt to be unusual, coming as it does at the peak of the new crop season in India. Better support from internal markets has caused Indian shippers to try to repurchase forward sales in this market. As a result, world demand has been focused more fully on Singapore, and Lampong has moved steadily higher. Reserves in our market were not large and sources felt the advanced replacement costs would be more fully reflected gradually.

US Must Adjust

—Continued from page 7

contended that "there is a deep anti-technical bias to much of the early experience children undergo in school. Elementary education is largely in the hands of women, and in our culture women throughout are discouraged from showing an avid interest in technology or the physical science."

As a result of this early bias, Dr. Dunning argued, and a number of other equally negative factors, American engineering has been held back from keeping abreast of many current developments.

What frightens Dr. Dunning most, however, is the fact that the young scientist who fights his way through the multiple scholastic and social adversities to enter college, must then be confronted with further difficulties.

His argument here revolved about the contention that where the wealthy of another day sponsored the universities of their time, the corporation of today has not followed in this pattern.

If the financial lag in US education is not taken up, along with the educational lag itself, Dr. Dunning suggested, we will really be in trouble.

There is no argument for the corporation not backing his source of leadership and research, for, Dr. Dunning suggested, "If our capitalists do not believe in capitalism, can capitalism survive?"

National Polychemicals, Inc. Sets Up Plastics Division

National Polychemicals, Inc., Wilmington, Mass., has formed a plastics division and has named Dr. Leopold F. Bornstein a vice-president of the company and general manager of the division.

Dr. Bornstein was previously with Synvar Corporation, Wilmington, Del., where he was vice-president and technical director for the past sixteen years.

National Polychemicals manufactures organic chemicals and compounding materials for the rubber, plastics and related industries. With its new plastics division, the firm hopes to open up new marketing areas.

Texas Butadiene Elects

Howard Sides has been elected assistant secretary and assistant comptroller by Texas Butadiene & Chemical Corporation, Houston, Tex. Mr. Sides has been with the company since January, 1956, shortly after its formation.

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Petroleum Derivatives

Producers of petroleum benzene last week had nothing to say about reports that they may be warming up to the idea of getting into the styrene industry. Conceding that the benzene picture as a whole was "little better, little worse" than it has been for the past few months, one producer did go so far as to suggest that "something is going to have to give." Prices are already very low. Everybody but the buyer seems agreed on that, another producer said. Stockpiles are growing, and the incursion of foreign material into the domestic scene hasn't made the picture here any prettier. Atop this, new producing units are still moving into the field. The trouble is, producers agree, that benzene capacity is growing faster than its best customer — styrene monomer, wants to buy. Most producers who have been in the market for a while harbor some resentment against the late-comers who are rocking the boat. However, no one appears ready yet to specifically say that they are going into the styrene field itself to help themselves out of the muddied benzene picture.

Current reports of the industry for the week ended January 30, indicate a decrease in crude-oil production and a decrease in crude runs, according to a report by the American Petroleum Institute. The daily average output of crude (including lease condensate) was 7,107,000 barrels, a decrease of 87,000 barrels from the preceding week. Daily average crude runs to stills of 8,113.000 barrels were 198,000 barrels below the preceding week, and 565,000 barrels above the week ended January 31. Runs of foreign crude amounted to 944,000 barrels daily compared with 1,066,000 barrels in the preceding week. For the four-week period ending January 30, crude oil production averaged 7,110,000 barrels daily, and crude runs to stills averaged 8,200,000 barrels daily with runs of foreign crude averaging 977,000 barrels daily.

The major British oil producer in the mid-East has announced an 18 cent per barrel cut in its schedule of posted prices for that area. American producers in the area concede that the move should effect their pricing structure. However, the conflict arises, as one American put it, in remaining competitive with the British, while at the same time not disturbing the political picture in the mid-East. The price cut will effect the income of the oil producing countries in the area. The middle-East move followed on the heels of an earlier move by an American oil firm in Venezuela to cut the price of crude 5 to 15 cents a barrel. Smaller cuts have also been put into effect on the domestic scene in the US recently.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Feb. 14, 1958
104.42	104.42	104.42	105.71

For Current Prices see page 9

Solvents and Diluents

Benzene — Petroleum producers of this material last week expressed no interest one way or the other in suggestions that the pressure to move heavy benzene stocks might drive them into the styrene producing field. Shut mouths, of course, in the solvents and diluents field means nothing, and the continued shading of price still going on in most areas of the market leads one to suspect that something possibly might break somewhere soon. However, this is merely an observation and in no way meant to reflect the views of producers themselves. As far as benzene men go, the market is in no different position than it was a month ago. They feel, as they have for some time—even prior to the price cut put into effect late last year—that if they hold fast to their seats and keep plugging their product where they can and how they can, things will eventually right themselves. When asked about the benzene stockpile, which shows little willingness to go along with this theory and, on the contrary, seems to be shooting holes into it, the producers look a little grim about the jowl but stick to their guns and their argument that if nothing more rocks the boat and the waters continue at no great storm levels than at present, things will eventually come about to a better tac and smoother sailing.

Lacquer Diluent—Prices for this material remained steady on spot last week. Production also remained constant. Producers say that the failure of Detroit to continue to expand markets will be a blow to the demand picture in 1959. However, it is added, strong construction business this summer may give some support to the demand picture.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended January 31 totaled 259,670,000 barrels, according to data reported by the Bureau of Mines. Compared with the total of 257,921.000 barrels the preceding week, this represents an increase of 1,749,000 barrels comprising an increase of 977,000 barrels in stocks of domestic crude and an increase of 772,000 barrels in stock of foreign crude.

LPG's

Butane-propane mix — November production of this material, according to a report by the Bureau of Mines, amounted to 54,733,000 gallons at plants and 5.376,000 gallons at refineries. Stocks of t[illegible] mix at plants, terminals and underground, the report said, amounted to 38,513,000 gallons as compared to the 36,961,000 gallons in stock on October 31. Demand — through the first eleven months of the year—was tallied in the report at 1,302,000 gallons in deliveries from plants and terminals for use in gasoline while other uses took 57,003,000 gallons.

Isobutane—Production of this material last November, the Bureau of Mines monthly report notes, amounted to 48,-371,000 gallons. Stocks of isobutane at plants, terminals and underground, it was added, amounted to 31,519,000 gallons on November 30, as compared to a storage picture of some 30,797,000 gallons on October 31. Demand for isobutane through deliveries from plants and terminals for use in gasoline amounted to 44,226,000 gallons during the first eleven months of the year.

Waxes, Minerals

Plastic makers show an ever growing determination to break into the coated container market, producers here reported last week. Latest move on the market invasion agenda, it was noted, was a move by one major chemical manufacturer to push up his high-pressure polyethylene output by about 100 million pounds. It is perfectly obvious, one petroleum wax maker said, that capacity at this level means intensified efforts by chemical makers to produce container coating at lower quotations. Cheap pricing, it is pretty much agreed, would be the tip of the invasion prong into the market.

Miscellaneous

Crude oil—Production in Saudi Arabia during January totaled 30,812,813 barrels, or an average of 993,962 barrels per calendar day, according to a report. This compares with 30,330,416 barrels, or an average of 978,401 barrels per calendar day, during the corresponding month last year.

OPD'S TRADE NAME CHEMICALS MARKET REPORT ON PAGE 44

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Espesol 1° Toluene	110.2°C	111.0°C	105 (KBV)	30	Lacquer, Paint and Varnish
Espesol 5° Xylene	137.8°C	141.0°C	98 (KBV)	30	Paint, Varnish, Insecticides
Espesol 1	309.0°F	348.0°F	98.0	30	Paint, Varnish, Insecticides
Espesol 2	362.0°F	410.0°F	99.0	30	Paint, Varnish
Espesol 3	286.0°F	325.0°F	88.0	30	Insecticides, Paint, Varnish, Wood Preserving

ALIPHATICS

Espesol Hexane	152.0°F	156.0°F	0.2	30	Oil Extraction, Adhesives
Espesol Heptane	201.0°F	207.0°F	0.2	30	Degreasing, Oil Extraction
Espesol 100	156.0°F	202.0°F	1.0	30	Rubber Processing, Adhesives
Espesol 204	205.0°F	223.0°F	44.0 (KBV)	30	Lacquer, Rotogravure, and Printing
Espesol 210	206.0°F	238.0°F	43.0 (KBV)	30	Lacquer, Rotogravure, Printing, Oil Extraction
Espesol 250	246.0°F	275.0°F	37.0 (KBV)	30	VM & P Naphtha, Paint, Varnish
Espesol 300	311.0°F	389.0°F	38.0 (KBV)	30	Dry Cleaning
Espesol 310A (DriKex)	306.0°F	338.0°F	30.0 (KBV)	30	Dry Cleaning, Paint, Varnish
Espesol 350	362.0°F	408.0°F	34.0 (KBV)	30	Paint, Varnish, Dry Cleaning
Espesol 380 (Espesone)	385.0°F	474.0°F	1.0	30	Insecticides, Paint, Varnish

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Aliphatic Organics

Here and there in the organic chemicals market, activity has slowed a bit this month. But no cries of "wolf" have been sounded. On the contrary, spokesmen for several of these "slower" trades commented that they fully expected the decline in demand. A sales-superlative January, they said, usually precludes as active a February, at least for us, since our customers have built up sufficient inventories to carry them for several weeks. Most of this group—among whom could be found producers of PE, carbon tet, and several of the lacquer solvents—indicated that they anticipated a resumption of big-volume buying toward the end of this month, to continue into March.

Elsewhere, the market scene was either unchanged last week or getting rosier. Plastic end-uses accounted for steady shipments of several materials. Similarly, requirements for chemicals for which acetic acid serves as building-block found increased quantities of the acid moving into both captive and external channels at what one trade member termed a surprisingly good pace.

The acrylonitrile market was visibly unchanged but recently announced plans for a new "multi-million dollar" plant—completion targeted for early 1960—indicated to all observers what industry considers the growth potential for acrylic fibers.

Solvents such as acetone, ethyl acetate and MEK moved in good volume to the coatings people, although somewhat below the January rate. A dark cloud appeared on the horizon in the form of lagging new car sales but most sources, still optimistic about a good year for Detroit—it's essential for all—viewed the situation as a result of seasonal factors primarily. Others, daring to throw in a note of pessimism, thought that indications were that Detroit will fare better in '59 than last year but not as well as it wants to, or might if the public had received the new—sometimes garish—models with more enthusiasm.

Acetic Acid — Business is surprisingly active, according to all reports. And thus encouraged, trade people are considerably optimistic about future business prospects.

Captive consumption is running into good volume, external sales are also expanding, with requirements for chemicals for which acetic is used as an intermediate the prime mover, it was said.

Earlier, there was some talk about lower prices on by-product acid, sold by the wood pulp people; questions which popped up at that time have since been resolved, however.

It was explained that by-product acid has been priced traditionally ½ cent below the synthetic schedule. Making the lower listing necessary, reportedly, is the never sure source of adequate supply that doesn't exactly attract buyers.

To the synthetic manufacturer of acetic acid, by-product acid presents no problems since it is obviously of minor importance. October output of synthetic, to cite an example, totaled more than 52.4 million pounds, compared with the 1.4 million output of natural or wood-distillation material.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Feb. 14, 1958
130.67	130.67	130.66	131.06

For Current Prices see page 9

Acrylonitrile — Plans for a new "multi-million dollar" acrylonitrile plant were recently announced by a major name in the petrochemicals business. When completed (expected date: early 1960), the new facilities will add considerably to already substantial acrylonitrile capacity. Obviously, such is warranted since the growth of acrylic fibers, for which acrylo is a building block, has been very rapid. And new applications and developments coming up all the time promise that these fibers will gain a still larger if not the greatest percentage of what is referred to broadly as the textile market in coming years.

Acrylonitrile prices have remained stable for many months, at 27c. per pound, tankcars; at 30c. per pound, drum carloads or truckloads, freight equalized. Forecast is for continued firmness.

Di-Pentaerythritol — Shortage of supply is as acute as ever, necessarily forcing suppliers to dole out what material is available.

Sources say that there is a hefty backlog of orders and prices are very firm. No opposition was encountered as a result of the considerable—4c. per pound—price advance put through last October.

Ethyl Acetate — Though mostly for nearby requirements, demand from coatings manufacturers continues at a steady pace, sellers of ethyl acetate reported last week. Most felt also that the immediate sales-outlook was favorable. But, admittedly, there were more clouds than usual obstructing the long-range view.

These clouds hung mostly over the auto industry, the giant among lacquer consumers, which reported new car sales in January, at 427,900 units, dropped 12.5 percent below December. Normally, a ten percent seasonal decline is expected. So in some quarters the extra 2½ percent drop caused some concern, much speculation.

As optimism is firmly implanted in the majority's thinking, most interpreted the sales slowdown to the glass shortage which held back production at Chrysler plants, and to normal seasonal factors, such as poor weather.

Others—clearly the minority—believed that new car sales may not go as well as originally anticipated, the negative effects

Ethyl Alcohol: November

Volume of ethyl alcohol produced, withdrawn and remaining as stocks at the end of the indicated periods, as reported by the Alcohol and Tobacco Tax Division, Internal Revenue Service: Domestic undenatured alcohol production represents gross production (original production plus production by redistillation) less the quantity consumed in redistillation. Stocks of domestic undenatured alcohol consist of quantities at industrial alcohol bonded warehouses and denaturing plants. Data on completely and specially denatured alcohol represent alcohol produced from domestic and imported alcohol and spirits produced by registered distilleries (redesignated upon receipt at denaturing plants as alcohol).

		Nov. 1958	*Nov.* 1957	*July* 1, '58 *Nov.* 30, '58	*July* 1, '57 *Nov.* 30, '58
NET PRODUCTIONS					
Undenatured	proof gals.	39,018,728	42,653,620	196,705,189	199,510,913
Completely denatured	wine gals.	53,360	55,386	302,215	256,755
Specially denatured	wine gals.	18,317,815	20,616,459	104,564,305	101,342,130
WITHDRAWALS					
Undenatured tax paid	proof gals.	580,669	1,163,461	3,114,335	4,543,933
Tax free	proof gals.	34,559,727	38,617,040	196,510,247	195,755,927
Completely denatured	wine gals.	55,275	58,065	300,850	238,828
Specially denatured	wine gals.	19,343,503	21,749,906	104,685,207	102,752,935
STOCKS AT END OF PERIOD					
Undenatured	proof gals.	30,672,142	27,775,053	30,672,142	27,775,053
Completely denatured	wine gals.	19,819	26,199	19,819	26,199
Specially denatured	wine gals.	5,955,149	3,843,316	5,955,149	3,843,316

OPD NOW REPORTS ON TRADE NAME CHEMICALS & SPECIALTIES

Aliphatic Organics

extending to all areas of business as the year progresses. No one believed, of course, that Detroit would fare worse than in '58. But recent layoffs at several auto plants gave all cause for pause.

Molasses—Use of molasses in feeding in the 1958-59 feeding year could be substantially larger than in 1957-58, based on indications in January, according to the Department of Agriculture.

Domestic output has been rising, USDA said, and in 1958-59 may be up another 12 million gallons over the 165 million produced in 1957-58. At the same time, imports and in-shipments may be 10 to 15 percent above the 368 million gallons of last year.

Markets for feeding cane molasses improved and were about steady during the week ended February 10. However, a few weak spots remained in the Gulf and Midwest. Demand was slightly better, largely as a result of heavier winter feed usage for livestock. Shipments increased, mostly against previous contracts; new business was confined mostly to immediate and nearby needs.

Pentaerythritol — Leading producers wound up January with a notable sales gain, more impressive because December business had also been exceptionally good. Recently, however, a slight slackening in the sales pace has been noted. Mainly responsible for the slowdown, sources said, was the rush of inventory-replacement buying early in the year that had built up consumers' stocks to very adequate levels.

One opinion held that February as a result will continue on the slow—but not poor—side, with buyers back in the market early in March. Concern over inventories—keeping them in line with sales of end-products—it was said, found PE shipments at peak levels one month, often declining the month following.

Prices appear very stable after considerable action in this department late last year. In fact, the trade is pretty much free from rumors of impending changes. Sources, admitting that they could only second-guess their managements, seriously doubt any second-quarter activity.

Exit from the PE market of a small volume producer in mid-January is not likely to have any spectacular effects. It was noted that this producer had limited productive capacity and thus was never looked upon as a major factor. Naturally, with one less contender for the big alkyd resins market, the remaining PE producers should be able to reap some benefits.

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Hooker Promotes Steigman To Its Top Research Post

Dr. Chris A Stiegman has been promoted to director of research for Hooker Chemical Corporation, Niagara Falls, N. Y. Dr. Stiegman will be in charge of all research at the corporate level, embracing both chemical and plastics research.

Corporate research is centralized at Hooker's new research center on Grand Island, near Niagara Falls. Dr. Stiegman, formerly technical director, will also be responsible for both the patent and product development departments, located at Niagara Falls.

At the same time, Hooker announced the following appointments: Dr. J. Howard Brown, general manager of Niagara research and development since 1957, is named general manager of chemical research; Dr. Alvin F. Shepard, who has been resident director of the LeRoy, N. Y. Laboratory of the Durez Plastics Division, becomes general manager of plastics research, and James S. Sconce, formerly technical assistant to management, is appointed technical assistant to the director of research. All will make their headquarters at the research center.

Sterling Units Appoint V.P. For Caribbean Operations

Edward S. Landreth has been appointed vice-president of Sterling Products International, Inc., and Winthrop Products Inc., in charge of operations in Cuba, Puerto Rico, the Dominican Republic and Haiti.

Both Sterling Products International and Winthrop Products are pharmaceutical subsidiaries of Sterling Drug Inc., New York. Mr. Landreth was previously regional director of the company's Caribbean markets.

Drug Research

—*Continued from page 5*

from 1946 to 1956 after the discovery of streptomycin and isoniazid.

While allowing for "unforseen factors" that may affect expected research breakthroughs, Mr. Stone happily predicted that the research "advances, coupled with population growth and increasing life expectancy should bring sales by 1965 to $2.8 billion.

"In 1970," he went on, "they should hit $3.8 billion. Then, with anticipated medical breakthroughs in cancer, heart, rheumatic, virus and mental diseases, the $5.2-billion mark might well be reached in 1975."

Also addressing the drug makers was Robert A. Hardt, president of Armour Pharmaceutical Company, Chicago. Mr. Hardt spoke of the need to keep the health professions and the public well informed. Conceding that this was a counter-offensive against the critics of the volume of advertising directed at physicians, he added that the drug industry "is a highly competitive industry and one must be aggressive if one is to survive. Moreover, all advertising people are aware that the secret of success is repetition, continuity and impact."

Olin Buys Insurance

—*Continued from page 4*

to the harbor of Conarky on the west coast of Africa, development of harbor facilities and building a city to house more than 4,000 persons who will work in the mines and at the alumina plant.

Omaf has purchased from ICA an investment guarantee insuring against expropriation up to $36,261,000 it may put into the new company as a loan investment. Funds are to be obtained for this purpose from borrowings arranged with American institutional lenders.

Olin Mathieson has purchased a guarantee against expropriation covering its proposed $19,800,000 of capital investment. Additional guarantee coverage was purchased covering initial loan commitments and interim financing which may be required prior to the dates scheduled for the loans by Omaf, bringing the total insurance coverage up to $72 million.

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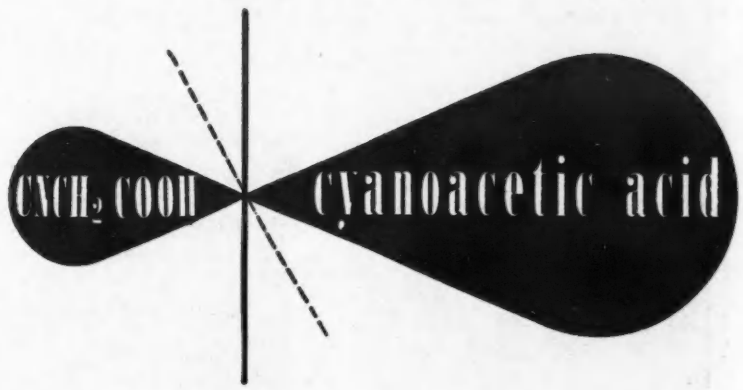

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ash • .075% maximum.

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AMIDATION
$CNCH_2COOH + HNRR^1 \longrightarrow CNCH_2CONRR^1 + H_2O$

CHLORINATION
$CNCH_2COOH + PCl_3 + Cl_2 \longrightarrow CNCH_2COCl + POCl_3 + HCl$

HYDROLYSIS
$CNCH_2COOH + H_2O \longrightarrow CH_2(COOH)_2 + NH_3$

REDUCTION
$CNCH_2COOH + 2H_2 \longrightarrow NH_2CH_2CH_2COOH$

CONDENSATION
$CNCH_2COOH + RCOR^1 \longrightarrow RR^1C{=}C(CN)COOH + H_2O$

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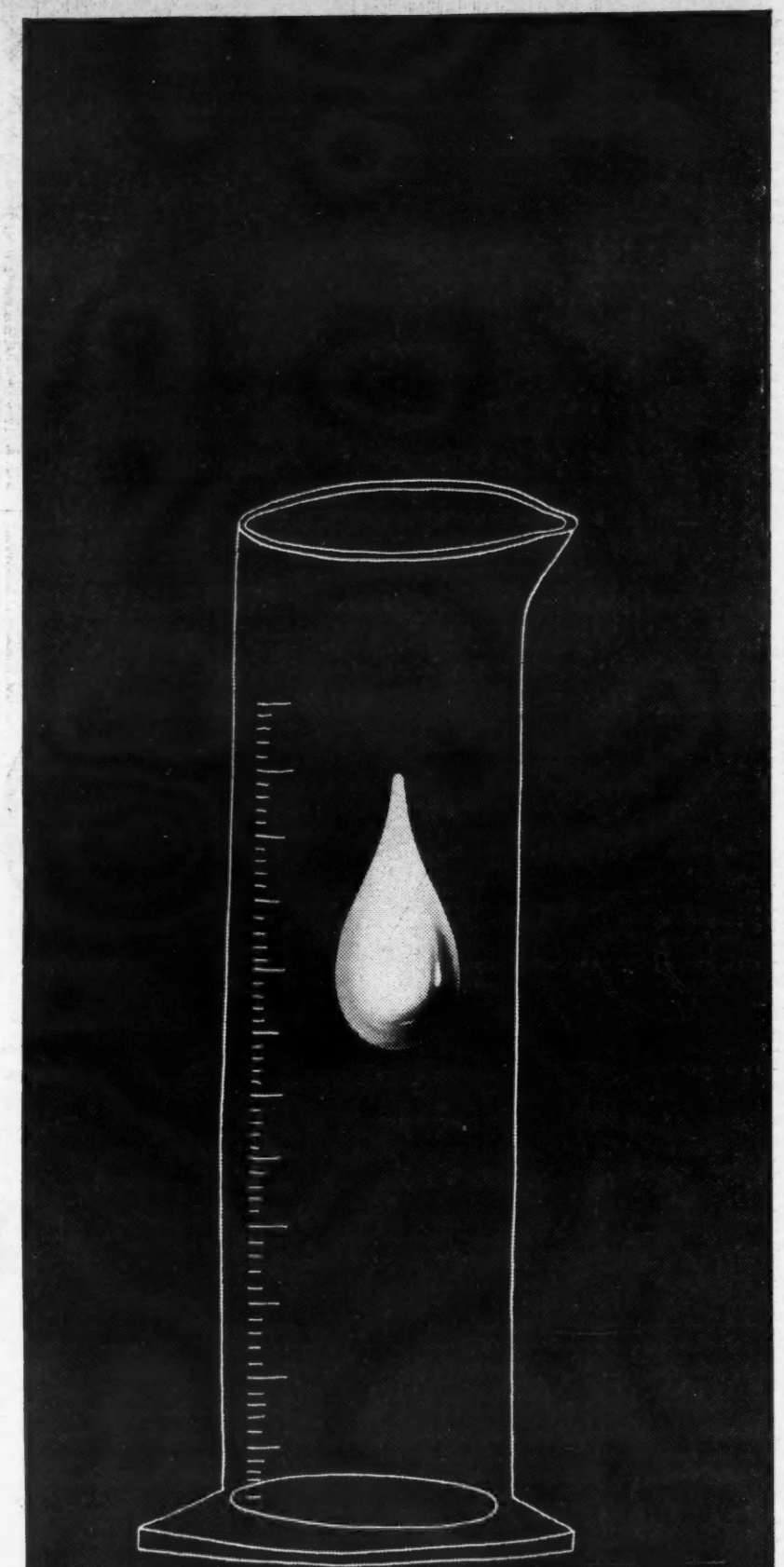

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Coal Chemicals

Major producers of phthalic anhydride reported material was moving more freely as a result of the price reduction which went into effect last month. Previous to the decline, consumers were buying in hand to mouth manner, it was said. There was some evidence that an upturn in chemicals buying since the first of the year was linked to the apparent hedge buying of steel against a possible steel strike later this year. Auto makers have been placing sizable steel orders, and the pace was expected to be stepped up as the quarter ends. In basic chemicals too, large consumers were felt to be making some attempt to work inventories into shape to meet any enventuality. At the same time, a genuine spirit of optimism was discernable in market reports in general. A cloud on the horizon appeared in the government's report last week that unemployment for January had reached the highest point since 1941.

The lack of substantial quantities of import naphthalene offered for advance requirements has taken some of the slack out of the domestic supply picture, it was said. An upturn in steel production was expected to keep the market in balance.

Creosote was dull and listless. Heavy buying by consumers prior to the December 1 price advance was responsible, sources said. Pentachlorophenol, another wood-treating material, was quiet after a 1 cent reduction late last year. The decline took place as a result of competitive conditions, sources said. Sodium pentachlorophenate was not effected by the decline in penta.

Average pay for iron and steel workers reached a new high in 1958, according to figures issued by the American Iron and Steel Institute. Average hourly wage was $3.181 as compared to $2.917 in the previous year.

The Institute estimated that steel production in the week ended February 15 would amount to 83.5 percent of theoretical capacity equivalent to 2,363,000 net tons of steel. Output was 2,288,000 tons in the week previous, 2,111,000 in the comparable week one month ago, and 1,445,000 net tons in the corresponding week one year ago.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Feb. 14, 1958
118.55	118.55	118.59	118.13

For Current Prices see page 9

Basic Products

Benzene—As yet, there was no sign of an upturn in demand from consumers anticipating a steel strike this year. However, sources said they would expect benzene buyers to begin working their inventories into shape to meet a possible emergency. Such a development seemed far away indeed, under current conditions of oversupply in coaltar and petroleum fields, as well as heavy imports.

Coaltar—The Bureau of Mines reported crude coaltar production in November amounted to 69,496,855 gallons as against 67,029,428 in the previous month and 67,844,300 gallons in the comparable month of 1957. Output in the first eleven months of last year totaled 629,923,912 gallons as compared with 810,879,800 gallons in the eleven-month period during 1957.

Sales of crude coaltar in November were 28,743,337 gallons as against 30,295,837 in the previous month and 31,935,200 gallons in the corresponding month of 1957. Sales for the eleven-month period last year were 287,265,586 gallons as compared with 411,254,700 gallons in the comparable period during 1957.

Cokeoven stocks amounted to 29,622,998 gallons at the close of November as against 25,567,195 gallons at the beginning of the month and 33,680,640 gallons at the end of November, 1957.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ending February 15, was as follows:

Ammonium liquor	lbs.	665,463
Ammonium sulfate	lbs.	36,482,292
Benzene	gals.	3,608,301
Coaltar	gals.	17,494,345
Crude chemical oil	gals.	458,431
Solvent naphtha, crude, heavy solvent	gals.	118,304
Toluene	gals.	768,982
Xylene	gals.	221,821

Creosote—Movement was routine. Heavy buying by large consumers prior to the price increase of December 1 has made for a dull market thus far in 1959. The prospect was for more of the same, sources said, although they hoped for some pickup this spring as railroads begin to repair winter damage to roadbeds.

Naphthalene—Some of the slack has been taken out of the domestic supply situation in this market, sources said. The lack of any substantial quantities of import material being offered for advance requirements has led to a more active domestic market. An upturn in steel production was expected to help keep phthalic anhydride consumers of naphthalene adequately supplied. Shipments of import naphthalene previously committed have continued to arrive. The latest recent shipment (about six million pounds) arrived in New York two weeks ago from Gdynia.

Toluene — Sources felt there was less likelihood of hedge buying in this market against a possible steel strike than might be the case in benzene. Petroleum stocks are fully adequate, and substantial quantities continue to be plowed back into the gasoline stream.

Railroad concessions on freight rates may have stimulated some interest in the construction of larger tankcars. Under current rulings, the roads would charge 100% of the posted freight rate on the first 10,000 gallons of a liquid shipment, and 70% of the rate on anything over 10,000 gallons. Sources pointed out that 90% of the present tankcar fleet is comprised of 8,000 and 10,000 gallon cars, with the balance composed of a few 6,000 gallon and some 12,500 gallon cars. Late last year, a major oil producer commissioned a tankcar at Philadelphia, said to be the largest in the country, which would be capable of transporting 20,000 gallons.

Xylene—The market remained slow moving, according to trade sources contacted last week. A long supply situation has continued to make for a highly competitive market. Producers expected no immediate price shift.

Intermediates

Anthraquinone—A major coal chemicals producer recently announced the start of construction of a new unit which would expand facilities for the production of anthraquinone, methyl anthraquinone, and phthalic anhydride. The unit would also turn out naphthoquinone, which would make it the only commercial production in this country. The "naphthoquinone process" was said to involve direct oxida- of naphthalene in a fixed bed catalytic converter. In development for six years, the process was reported successful in pilot plant operations. The unit is slated for completion late this year.

Bisphenol-A—Sources quoted unchanged prices in this market last week. A change in quantity differentials late last year amounted to a ½c. per pound reduction. In December, producers established a 29½c. per pound price on lots of 70,000 pounds or more. Less than 70,000 pounds was listed at 30c. per pound.

Latest poll of the Buyers Group of the National Association of Purchasing Agents revealed that 75% of the purchasing agents felt the current schedule would hold steady, while 25% were of the opinion that another decline was in order.

2,6-Di-tert-butyl-p-cresol—Stocks in this market remain fully adequate to supply

OPD'S TRADE NAME CHEMICALS MARKET REPORT ON PAGE 44

Coal Chemicals

consumers in the gasoline, food and feed industries. A reduction in price last month had not appreciably stimulated demand, according to some reports, but sources said it was a normally slow time of year anyway. With warmer weather and increased summer driving, trade sources expected a good pickup in the next few months. Likewise the feed business should be more active, it was said, as warmer weather makes it necessary for farmers to protect their feed stocks against spoilage.

Maleic Anhydride—Prices remained unchanged from levels long in effect in the industry. Producers were optimistic concerning growing outlets for this material in polyester resins. Demand for maleic for use in alkyds has been well sustained. Use in agricultural chemicals has been on the increase in recent years, although it was estimated to measure less than 10% of the current market Producers point to the variety of outlets for this versatile chemical as a basis for the continued expansion of production capacity. Some reports have indicated that capacity will exceed 60 million pounds in the next five years.

Pentachlorophenol—Competitive conditions forced a 1c. per pound reduction in price in this market last December. Since then the market has been quiet, pricewise. Withdrawals for wood treatment have remained routine. Sources hoped for better demand from utility companies and railroad outlets with warmer weather.

Phthalic Anhydride — Producers reported stocks were moving more freely in this market than was the case prior of the 4c. per pound price reduction which went into effect last month. In anticipation of a lower price, consumers had been buying in hand to mouth quantity. However, with a 17c. price in effect throughout the industry, the pressure was relieved.

Other factors entered into the better demand picture. An uptrend in production in the automobile industry formed a basis for optimism in many chemical markets. It was pointed out that trade reports indicate that much of this optimism is on the automobile dealers' level, where the cars actually have to be sold. Some hoped for a year comparable to the 5.5 million unit year of 1957. An uptrend in the auto industry means a better year for durable goods in general, it was said, and this, in turn, means sustained demand for basic chemicals which go into the making of a variety of resins and finishes of all kinds.

There was some indication that phthalic consumers might be beefing up inventories in anticipation of a steel strike this spring. This was particularly the case, since the domestic naphthalene market has gone from a relatively long supply position to a balanced one, in recent weeks. An absence of import material of any quantity for advance requirements has taken the slack out of the domestic naphthalene market. Previously contracted shipments continued to arrive. A shipment of 32,151 bags (about 6,000,000 pounds) came into New York from Gdynia two weeks ago.

There was no "scare buying" by any means, but business has continued to show an improvement and a firmer tone was evident throughout.

Styrene Monomer—Price remained unchanged and steady on both polymer and rubber grade material. A 7/10c. per pound reduction was on tap for April 1 for rubber grade styrene monomer. The reduction would bring tankcar lots down to 12c. per pound.

Monomer producers have reported steady improvement in volume moving to rubber outlets over recent months. The upturn in the auto industry has been felt throughout the economy, despite some gloomy predictions heard in some quarters regarding consumer acceptance of new car models. For the present, auto makers were busy and scheduled to become more so as the first quarter comes to a close.

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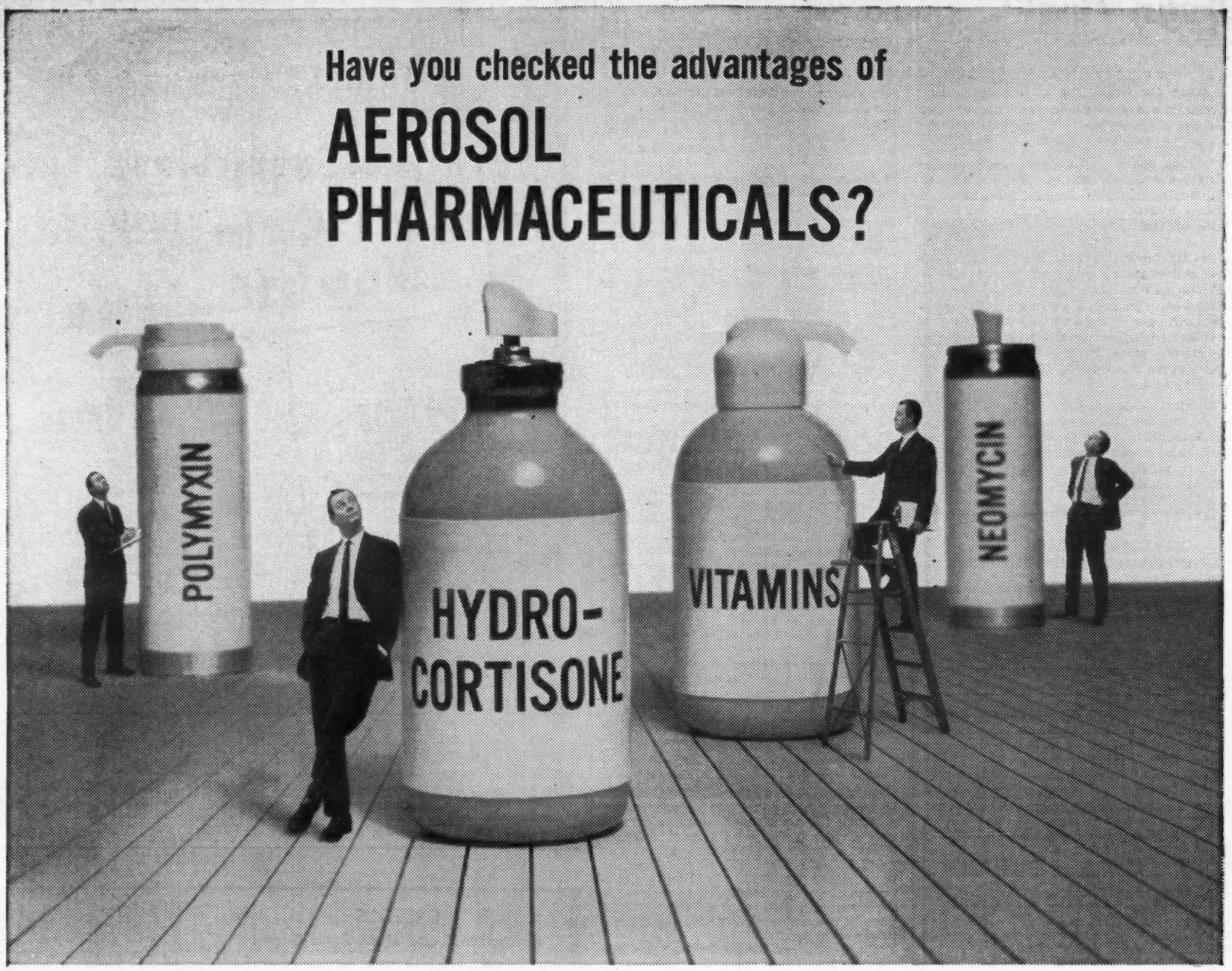

• The unique advantages of pressure packaging lend themselves to a number of pharmaceutical products and applications. For some time now Pfizer has been working in close cooperation with the pressure packaging industry to develop formulations where these advantages will be most profitable for pharmaceutical manufacturers.

For example, the stability of liquid multivitamins is greatly extended by pressure packaging because the preparations are overlayed by an inert gas, such as nitrogen, for the life of the container. Also, they are protected from the deleterious effects of light.

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The Pfizer non-toxic plasticizers—Citroflex® A-2 and A-4 have proven highly effective for polyvinyl compounds used in pressure packed hair sprays and spray bandages.

Because of the firm conviction that pressure packaging will play an important role in the pharmaceutical industry, Pfizer is continuing to direct considerable effort towards the development of antibiotic, steroid and vitamin aerosol formulations. For an interesting report concerning the role pressure packaging is playing, and will play, in the pharmaceutical industry write to Pfizer requesting reprints of the article, "Pressure-Packed Pharmaceuticals."

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Drugs, Fine Chemicals

In view of the wave of price reductions that have hit drugs and fine chemicals since the beginning of the year, last week's market was abnormally quiet. No revisions were recorded and, in fact, speculation in the price realm was at a bare minimum. That is, among trade folk; the chemical PA's outdid themselves with predictions. Included among those chemicals for which the buyers saw the price block being readied were ascorbic acid (it always shows up), folic acid, isoniazid, neomycin, phenylephrine, procaine hydrochloride, reserpine, and a couple of the sulfa drugs. Not a bad list.

A while back, General Services Administration announced its intention to limit the sale of its stockpiled quinine to European companies exclusively. Last week, GSA said it had changed its mind, and planned to reoffer the sizable quinine stocks,* some 13,860,000 ounces, in order to give domestic interests an opportunity to make a bid.

Thinking was originally that there was no market for the quinine in the US. European requirements, on the other hand, were relatively large. In addition, atrabine, an adequate substitute, was available here—and the reason why the government was unloading its quinine horde in the first place. But recently, US firms have indicated a desire to participate in the bidding and GSA therefore decided to withdraw its earlier proposal. Indications are that the sale will get underway shortly.

Sales of cortico-steriods at the manufacturer's level are expected to reach $120 million this year, up 20 percent from '58. While this is obviously an enviable gain, growth in usage of these drugs is seen to be even more phenomenal when one considers that in 1950 sales totaled a mere, by present standards, $13 million—all cortisone, the only thing around at the time.

p-Aminosalicylic Acid — Import pressures, reportedly, precipitated the lower prices on p-aminosalicylic acid and the calcium and sodium salts announced the last of January. New schedule put the acid at $3.40 per pound, calcium p-aminosalicylate at $3.10, and the sodium salt at $1.90.

Gelatin — The Census bureau reported total gelatin production in December at 4,438,000 pounds, against 4,471,000 the previous month; shipments at 3,907,000 pounds, compared with 4,134,000; and end-of-month stocks at 13,144,000 versus 12,-613,000 pounds in November.

Classified by type . . . December production of pharmaceutical grade gelatin amounted to 294,000 pounds; shipments totaled 236,000; stocks remaining at end-of-month 1,007,000 pounds. Comparable statistics (output, shipments, stocks) for November were 422,000, 317,000, 949,000 pounds.

Market activity in recent weeks has been gradually livening up. Supplies, as statistics above indicate, are fully adequate. Longstanding prices are unchanged.

Hydrobromic Acid—Trade reports indicate that requirements are up to normal levels, supplies fully adequate.

For 48 percent medicinal grade hydrobromic acid, long-standing prices range from 48c. per pound for a 150-lb. carboy to 56c. for a single 60-lb. carboy.

For 48 percent technical grade hydrobromic acid, the carload or truckload listing is 32.75c. per pound. Prices on smaller quantities are scaled upward, to 36.75c. for a minimum order of 60 pounds (5 gallon carboy), to $1 per pound for less than a carboy.

The acid is used in the manufacture of organic and inorganic bromides, and for the manufacture of various organic intermediates, dyes, drugs and perfumes. It is also used as a sedative and in photographic processes.

Lysine—Foreign Commerce Weekly reports that an Australian chemical manufacturer is interested in augmenting its production activities to include the manufacture of lysine.

A good market potential reportedly exists for lysine in Australia; for instance, as a poultry feed additive.

Interested firms are invited to contact Halycon Products Pty., Ltd., Victoria, Australia.

Pyridoxine Hydrochloride — In a move that's expected to bolster requirements, producers a fortnight ago (February 2) reduced pyridoxine hydrochloride prices roughtly 15 percent. New schedule was set up as follows: 1-10 kilos, $190 per kilo; 500 gram s.c.b., 19c. per gram; 100 gram s.c.b., 19.5c. per gram; and 25 gram s.c.b., 22.5c. per gram.

While the extent of the price slash took some people by surprise, none were really amazed that prices were reduced. The chemical PA's, among others, have been predicting lower prices since third quarter, '58.

Quinine—Contrary to an earlier announcement, General Services Administration is not going to limit the sale of its quinine stockpile to European interests exclusively. The government agency said last week that it intended to reoffer the material soon in order to open the bidding to domestic firms.

It was originally thought that Europe should be given the first opportunity to bid on the quinine stocks, amounting to something like 13,860,000 ounces, because demand for the chemical abroad exceeds US requirements by a considerable margin. Also because atabrine, an adequate substitute, is readily available in this country (and the reason why GSA is cleaning out its quinine in the first place).

But recently US firms have indicated a desire to participate in the bidding, and GSA has therefore decided to withdraw its earlier notice.

It's expected that the government's quinine sale will get underway shortly. Once

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Feb. 14, 1958
61.15	61.15*	62.16	63.20

* Revised.

For Current Prices see page 9

Drug and Fine Chemical Exports: November

Exports of selected drugs and fine chemicals for the months of October and November, 1958, as reported by the Bureau of Census, were as follows:

		November	October
Analgesics and antipyretics	lbs.	8,758	15,905
Antibiotics, n.e.c.*	grs.	12,512,279	12,681,730
Ascorbic Acid	lbs.	22,977	33,342
Aspirin	lbs.	72,309	62,231
B-complex (excluding B_1 and B_{12})	lbs.	32,714	32,316
Bacitracin	100-million units	1,300	7,009
Dihydrostreptomycin	gms.	7,099,907	5,013,286
Pectin and preparations	lbs.	27,720	40,935
Penicillin, bulk	million units	5,079,988	4,434,522
Streptomycin	gms.	3,388,873	2,742,186
Sulfonamides	lbs.	54,429	68,507
Thiamine	lbs.	4,699	5,689
Vitamin A, bulk and medicinal	lbs.	8,083	7,703
Vitamins, n.e.c.*	lbs.	56,692	64,007

* Not elsewhere classified by the Census bureau.

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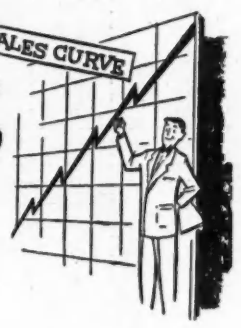

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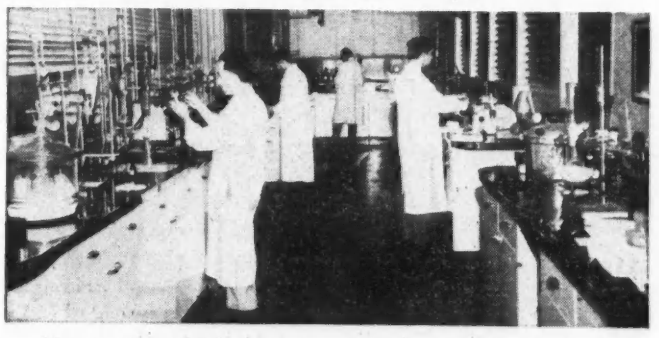

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Drugs, Fine Chemicals

notice is given, six months are allowed before final transactions must be made.

Riboflavin—Improvements in processing techniques and larger volume demand, as well as the desire to expand usage further, were said to be the factors behind the recent 10 percent reduction in riboflavin prices.

Under the new schedule, the listing for U.S.P. superfine powder became $36 per kilo for quantities of 1 kilo or more in fiber drums.

For riboflavin 5-phosphate sodium, new price is $104.70, formerly $107.50.

Steroids—According to recently published reports, cortico-steroid sales at the manufacturer's level should reach $120 million this year, up 20 percent from '58. While this is a gain not to be sneezed at, growth in usage of these drugs is even more phenomenal when one considers that in 1950 sales totaled a mere—by present standards—$13 million.

At present, the major cortico-steroids are cortisone (sales in '59 are expected to reach $8 million, compared with $13 million, the whole market, in 1950); hydrocortisone, which occupies approximately 30 percent of the market; prednisone and prednisolone. Each year, more analogues of steroid hormones have been placed on the market, but rapidly expanding usage, it's said, has somehow made room for all.

Approximately 9 percent of all prescriptions written by US physicians are for cortico-steroids. In this, they are outranked only by antibiotics (15.5 percent) and tranquilizers (10 percent).

Thiamine—Producers dropped prices a cool 10 percent, February 2. Action was intended to expand usage of the vitamin in existing pharmaceutical and food markets, spokesmen said.

New listings were established at $36 per kilo for thiamine hydrochloride; at $38 per kilo, for thiamine hydrochloride for ampuls; and at $36 per kilo for thiamine mononitrate.

Prices quoted above apply to orders of 1 kilo or more. For smaller quantities, listings are proportionately higher.

Tocopherol—Producers slashed prices approximately 25 percent early this month. Up until that time, the schedule had been unrevised since late 1956.

Prices were established at $99 per kilo for dl-a-tocopherol; at $67 per kilo for d-a-tocopherols, mixed, pure basis. For dl-a-tocopheryl acetate, $90 per kilo, for d-a-tocopheryl acetate at $122 per kilo.

Spokesmen for the trade expect that the lower listings will encourage greater usage of vitamin E.

Botanicals

Botanical dealers last week reported a fair volume of business, adequate supplies for the most part, and relatively firm prices. New interest, they said, was picking up week-to-week.

Chamomile Flowers—Build-up of supply of Hungarian chamomile flowers, the result of recent arrivals and lax demand, precipitated a price decline of 50c., to $2.25. Roman flowers are similarly quoted.

Goldenseal Root—A report from a dealer last week indicated that goldenseal root, NF tested, was firm at $3.50 per pound, the powdered material similarly so at $4 to $4.25. Slightly above prices recorded for this botanical some weeks ago, these quotes were said to have arisen with the recent improvement in demand.

Licorice Root—Imports of licorice root, crude, totaled 43.8 and 43 million pounds, respectively, in 1957 and 1956. And during the first 7 months of '58, BDSA reported, arrivals amounted to 9.9 million pounds. Import prices, f.o.b. country of shipment, averaged as follows: 1958 (7 months), 4c. per pound; 1957, 4.3c.; and 1956, 4c. per pound.

Principal suppliers of licorice root in recent years have been Iraq, Turkey, and the USSR.

Licorice is used primarily in flavoring tobacco. A comparatively minor use is in confectionery, strangely enough.

Mandrake Root—Inquiry is said to be fairly active, stocks adequate but not bulging. Quote stands at 48c. to 50c. per pound.

Pleurisy Root—A small and relatively unimportant item, pleurisy root is listed at 45c. to 50c. per pound.

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Unadols should add shelf life, palatability, emulsion stability, neutral pH characteristics, and other benefits to many formulations. By protecting the essential unsaturation through conversion to alcohols, the tendency to rancidity is reduced. (Unsaturated fatty acids themselves usually become rancid in a relatively short time.)

A limited number of people have worked with Unadols and like them for possible uses in pharmaceutical and cosmetic preparations. Frankly, though, not enough work has been done along this line. So about all ADM can do at this point is to tell you what is known about the pharmaceutical Unadols and show you the specifications. We hope your curiosity and desire for something better will spur you on to write for evalution samples.

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Nat'l Research Forms Unit For Tantalum, Other Metals

National Research Corporation, Cambridge, Mass., has formed a metals division to market high-purity tantalum and its alloys and other rare metals and related chemicals. The company got into commercial production on tantalum in July.

Operation of the wholly-owned division is under the direction of Dr. James H. Gardner, general manager. Dr. G. Lloyd Martin has been named technical director and Kenneth A. Geiger, sales manager.

Tantalum metal is produced and marketed as powder, arc-cast ingot and fabricated forms for the electronics, atomic energy, chemical process, missiles and other industries.

The company's present plant has a capacity of 30,000 pounds a year and includes equipment for primary metal production as well as facilities for large ingot and alloy melting.

Reichhold Shipping Methanol To Northern Market Area

Reichhold Chemicals, Inc., White Plains, N.Y., has begun shipping large quantity tanker and barge shipments of methanol to northern market areas.

First shipment to the northeast, Reichhold says, consisted of 670,000 gallons loaded at the firm's new deepwater terminal at Mobile, Ala., and discharged at Carteret, N.J.

Also, the Chicago area got its first shipment through a 360,000 gallon capacity barge from Pensacola, Fla.

Reichhold says it expects to ship about 1.5 million gallons of methanol through Chicago facilities per year. Shipments will be made from the facilities, it was added, via tank trucks or tankcars to industrial customers in the northern part of the U. S.

Narcotics Bureau Will Add 2 New Drugs to Opiate List

Two additional drugs considered to be addiction-forming in the same way as morphine are scheduled to go on the opiate list of the Bureau of Narcotics and will be made subject to the controls that now apply to such drugs. They are:

2' - Hydroxy - 5,9 - dimethyl-2-(2-phenyl ethyl)-6,7-benzomorphan.

Ethyl 4-phenyl - 1 - [3 - (phenylamino)-propyl]-4-piperidinecarboxylate.

The bureau stated that consideration will be given to any written data or arguments pertaining to the drugs which is received by March 9.

CCDA Will Ponder

—Continued from page 7

other panels: "Diversification from Without—the Management of Acquisitions," and "Diversification from Within—Problems Introducing New Product Lines."

The afternoon session will include two concurrent discussions: "Diversification in Plasticizers," and "Diversification in Intermediates," to be followed by two more concurrent panels: "Diversification in Plastics," and "Diversification in Detergents and Chemical Specialties."

The workshop, slated for all of March 5, will deal with a "study of diversification." CCDA has broken the workshop down into two problem assignments, one set for 9 a.m., the other for 12 p.m.

At the luncheon on March 4, Dr. Willis J. Winn, dean of the Wharton School of Finance and Commerce, University of Pennsylvania and the CCDA guest speaker, will talk on "Training for Management." That evening, following the day's program, the presentation of the 1959 CCDA Honor Award will be featured at the group's annual banquet.

The luncheon speaker on March 5 will be Dr. Wallace Brode, science advisor to the US secretary of state, who will talk on "International Aspects of Science."

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AMYRIS OIL—15 dms, P Mitchell, Miragoane
2 dms, George Uhe Co, Miragoane
ANILINE DYES—13 dms, Heemsoth Kerner, Liverpool
5 dms, Ciba Co, Liverpool
10 dms, Carbic Color & Chemical Co, Hamburg
4 dms, Putnam Chemical Corp, Hamburg
21 dms, Sandoz Inc, Havre
139 dms, Hensel Bruckmann & Lorbacher, Hamburg
3 dms, Wedeman & Godknecht, Hamburg
15 dms, Carbic Color & Chemical Co, Rotterdam
102 dms, Rotterdam
ANNATTO SEED—100 bgs, J W Fourchtein & Co, Guayaquil
ANTIMONY—60 kgs, Watson Geach, Liverpool
ANTIMONY OXIDE—400 bgs, D Hauser, Hamburg
90 bgs, Antwerp
ANTIMONY REGULUS—407 cs, Rijeka
50 cs, Antwerp
ARABIC GUM—250 bgs, Bankers Trust Co, Port Sudan
100 bgs, Chase Manhattan Bank, Port Sundan
100 bgs, National City Bank, Port Sudan
254 bgs, Bank of NY, Port Sudan
150 bgs, Irving Trust Co, Port Sudan
ASCORBIC ACID—12 dms, Havre
ATROPINE SULFATE—1 cs, S B Penick & Co, Havre
BARBASCO ROOT—66 bls, Astoria Panamericana, Callao
BARIUM CHLORATE—40 dms, James E Fox, Rotterdam
BEESWAX—200 bgs, Mercantile Metal & Ore Corp, Valparaiso
68 bgs, Curacao Trading Co, Ciudad Trujillo
200 bgs, Biddle Sawyer Corp, Valparaiso
126 bgs, S Zeitlins Sons, Santos
52 bgs, Tampico
80 bgs, Puerto Plata
BENZOIN GUM—20 cs, Meer Corp, Singapore
BERGAMOT OIL—20 cs, Tombarel Products Corp, Messina
48 cs, Messina
BISMUTH—215 cs, Cerro de Pasco Corp, Callao
BLANC FIXE 552 bgs, Rotterdam
BRUCINE ALKALOID—4 cs, Biddle Sawyer Corp, Antwerp
BRUCINE SULFATE—4 cs, Esso Standard Oil Co, London
1 cs, London
CADMIUM—200 cs, Overseas Metal & Ore Corp, Lobito
CAFFEINE—16 dms, Byron Chemical Co, Marseille
CALCIUM LACTATE—2 dms, Natural Nydegger, Rotterdam
CAMPHOR POWDER—100 cs, Prentiss Drug & Chemical Co, Keelung
19 cs, Magnus Mabee & Reynard, Keelung
CAMPHOR, SYNTHETIC—3 cs, D G Mamlock, London
CARAWAY SEED—200 bgs, R J Spitz, Copenhagen
CARNAUBA WAX—376 bgs, Biddle Sawyer Corp, Parnahiba
125 bgs, Frank B Ross, Parnahiba
300 bgs, Irving Trust Co, Parnahiba
375 bgs, Guaranty Trust Co, Parnahiba
112 bgs, Frank B Ross, Fortaleza
279 bgs, Irving Trust Co, Fortaleza
220 bgs, N American Cocoa Trading Co, Salvador
1,500 bgs, Cayene
CASEIN—4,242 bgs, A J Mills & Co, Wellington
93 bgs, F H Paul & Stein Bros, Napier
275 bgs, Cone Close Co, Auckland
4,336 bgs, A J Mills & Co, Auckland
400 bgs, Kadison Lab, Rotterdam
2,000 bgs, Tupman Thurlow, Buenos Aires
900 bgs, P A Dunkel, Rotterdam
CASSIA—99 bls, A G Dunn, Tandjong Priok
CASTOR OIL—300 tons, Western Cotton Oil Co, Santos
CELERY SEED—348 bgs, C Czarikow, Bombay
CITRONELLA OIL—50 dms, Hong Kong
COALTAR DYES—25 dms, Geigy Chemical Corp, Hamburg
148 dms, Hensel Bruckmann & Lorbacher, Rotterdam
24 dms, Orlex Dyes & Chemical Corp, Rotterdam
17 dms, Rotterdam
COBALT POWDER—35 dms, C Hardy, Havre
COBALT SULFATE—220 dms, Advance International Ltd, London
220 dms, Chemical Bank, London
COCHINEAL—34 bgs, Bank of N Y, Callao
COCONUT OIL—505 tons, Procter & Gamble Co, Cebu
800 tons, American Trust Co, Cebu
1,030 tons, L A Fern & Co, Rotterdam
COCONUT OIL, HYDROGENATED—91 tons, Fallek Products Co, Rotterdam
COPAL GUM—338 bgs, O G Innes Corp, Matadi
334 bgs, Archer Daniels Midland Co, Matadi
CRESYLIC ACID—388 dms, Van Oppen & Co, Liverpool
DEXTRIN—445 bgs, Stein Hall & Co, Rotterdam
500 bgs, Morningstar Paisley Inc, Rotterdam
850 bgs, Guaranty Trust Co, Rotterdam
60 bgs, Rotterdam
EPHEDRINE HYDROCHLORIDE—1 dm, Hamburg
EPSOM SALT—400 bgs, Chase Manhattan Bank, Hamburg
FENNEL SEED—167 bgs, Rijeka
FERRIC SULFATE—50 dms, Hudson Shipping Co, Liverpool
FISH OIL—100 dms, H A Gogarty, Rotterdam
FISHLIVER OIL—3 dms, Arista Oil Products Co, Yokohama
5 dms, Chase Manhattan Bank, Yokohama
FORMIC ACID—45 dms, Bremen
GHATTI GUM—114 bgs, Morningstar Paisley Inc, Bombay
GINGER—274 bgs, Kellys America Ltd, London
179 bgs, Freetown
GLUE—44 dms, Franco Belgian Trading Corp, Bordeaux
318 dms, Corbett & Co, Marseille
GLUE, BONE—361 bgs, Manufacturers Trust Co, Rijeka
GUAR GUM—446 bgs, Morningstar Paisley Inc, Genoa
100 bgs, Duche Uni Gum Corp, Rotterdam
GYPSUM, CRUDE—12,764 tons, U S Gypsum Co, Hantsport
HORNMEAL—1,933 bgs, Santos
INDIGO—13 dms, Hensel Bruckmann & Lorbacher, Hamburg
IODINE, CRUDE—40 kgs, Gallard Schlessinger, Yokohama
40 kgs, Bunge Corp, Yokohama
IPECAC ROOT—3 bgs, Wessel Duval & Co, Cristobal
IRON POWDER—27 dms, Hensel Bruckmann & Lorbacher, Rotterdam
KAOLIN—55 dms, E Fougera & Co, London
KARAYA GUM—160 bgs, Colony Import & Export Corp, Bombay
307 bgs, Jacques Wolf, Bombay
KOLA NUTS—50 bgs, D Steengrafe & Co, Kingston
LACTOSE—240 dms, Chas L Huisking & Co, Liverpool
200 bgs, A J Mills & Co, Bluff
200 bgs, Rotterdam
LAUREL LEAVES—101 bls, Louis Furth, Izmir
LAVENDER OIL, SPIKE—5 dms, L A Champon & Co, Barcelona
LEMON OIL—100 cs, National City Bank, Messina
2 dms, Polak & Schwarz, Vera Cruz
LEMON PEEL—25 bls, Alicante
LEMONGRASS OIL—33 dms, Volkart Bros, Cochin
11 dms, Verona Chemical Co, Cochin
11 dms, George Leuders & Co, Cochin
LICORICE EXTRACT—575 bgs, Wm E Martin & Sons, Izmir
999 cs, Wm E Martin & Sons, Izmir
LICORICE ROOT—48 bls, S B Penick & Co, Trieste
LIME OIL—1 dm, Citrus & Allied Essential Oils Co, Puerto Plata
LOCUST BEANS—237 bgs, S B Penick & Co, Larnaca
LOCUST BEAN GUM—100 bgs, Unifindo International Corp, Genoa
180 bgs, Stein Hall & Co, Genoa
364 bgs, J L Quesada, Barcelona
20 bgs, Orbis Products Corp, Genoa
200 bgs, Nehls & O'Connell, Genoa
400 bgs, J L Quesada, Tarragona
400 bgs, Portimao
MANGANESE—125 cks, General Metallic Oxides, Liverpool
MERCURY—64 flks, Trieste
MOLASSES—1,032 tons, W R Grace & Co, Salaverry
MUSTARD SEED—160 bgs, C Gulden, London
NAPHTHALENE—2,214 bgs, J N Forker, London
2,857 bgs, Rotterdam
NAPHTHENIC ACID—130 dms, Bernardine Shipping Co, Talara
NUTMEG—127 bgs, Dodge & Olcott, Tandjong Priok
14 bgs, California Commodities Corp, Singapore
72 bgs, J F Frank, Semarang
28 bgs, J H Elton, Singapore
OLEYL ALCOHOL—26 dms, Olympic Shipping Co, Liverpool
OLIVE OIL—25 dms, Old Monk Olive Oil Co, Marseille
75 dms, Manufacturers Trust Co, Barcelona
25 dms, De Simone Bros, Tunis
268 dms, Leghorn Trading Co, Genoa
100 dms, G Scalfani, Seville
50 dms, Bankers Trust Co, Tarragona
25 dms, National City Bank, Seville
46 dms, Messina
ORANGE OIL—1 dm, Citrus & Allied Essential Oils Co, Puerto Plata
ORANGE PEEL—113 bls, Meer Corp, Antwerp
400 bgs, Cap Haitien
OREGANO LEAVES—250 bgs, Chemical Bank, Messina
OURICURY WAX—55 bgs, Dura Commodities Corp, Rio de Janeiro
111 bgs, M Argueso & Co, Salvador
55 bgs, Cornelius Wax Refining, Salvador
PALM OIL—301 tons, Balfour Guthrie, Matadi
PALMKERNEL OIL—266 tons, Durkee Famous Foods, Matadi
301 tons, Matadi
PALO SANTO OIL—36 cs, Hollander Trading Corp, Buenos Aires
PAPAIN—11 cs, Balfour Guthrie, Matadi
PAPRIKA—150 bgs, R T French, Hamburg
250 bgs, J Raphael & Sons, Hamburg
100 bgs, Pepper Products Co, Hamburg
250 bgs, Van Loan & Co, Hamburg
250 bgs, M J Golombeck, Hamburg
500 bgs, Rijeka
PEPPER, BLACK—150 bgs, C M Van Sillevoldt, Singapore
480 bgs, Cochin
1,200 bgs, Alleppey
PEPPER, RED—112 bgs, Norwalk Mills, Kobe
112 bgs, Wm M Allison & Co, Kobe
100 bgs, Wm E Martin & Sons, Kobe
PETITGRAIN OIL—6 dms, George Uhe Co, Buenos Aires
17 dms, Elton Trading Corp, Buenos Aires
a-PICOLINE—48 dms, Reilly Tar & Chemical Corp, London
POLYVINYL ACETATE RESIN—500 bgs, G G Lippelgoes, Kobe
POLYVINYL CHLORIDE—2,400 bgs, Kayson Rubber & Plastics Ltd, Yokohama
POLYVINYL EMULSION—25 bbls, Lloyd Associates, Bremen
POPPY SEED—100 bgs, Levy & Levis Co, Rotterdam
200 bgs, Louis Furth, Rotterdam
90 bgs, Ideal Trading Co, Copenhagen
150 bgs, R J Spitz, Copenhagen
300 bgs, Rotterdam
POTASSIUM CYANIDE—50 dms, C Hardy, Havre
POTASSIUM FERROCYANIDE—500 bgs, Haras Co, Rotterdam
300 bgs, Filo Color & Chemical Corp, Rotterdam
POTASSIUM PERCHLORATE—200 dms, C Hardy, Havre
POTASSIUM SILICATE—1,086 bgs, Sylvania Electric Products, Rotterdam
PRUSSIAN BLUE—8 dms, C J Osborn Co, Rotterdam
60 dms, Smith Chemical & Color Co, Rotterdam
PSYLLIUM SEED HUSKS—250 bgs, Prentiss Drug & Chemical Co, Bombay
PYRETHRUM EXTRACT—36 dms, Prentiss Drug & Chemical Co, Matadi
QUEBRACHO EXTRACT—360 bgs, International Products Corp, Buenos Aires
SAGE LEAVES—600 bls, Manufacturers Trust Co, Trieste
350 bls, Trieste
SAGE OIL—3 dms, L A Champon & Co, Barcelona
SAGO FLOUR—571 bgs, Stein Hall & Co, Singapore
SANDALWOOD OIL—7 cs, Agriscent Corp, Bombay
9 cs, Agriscent Corp, Cochin
6 cs, Ungerer & Co, Cochin
10 cs, Essential Oils Inc, Cochin
SAPONINE—19 cs, A K Peters Co, Valparaiso
10 dms, Karr Ellis & Co, Liverpool

SHELLAC—106 bgs, F H Paul & Stein Bros, Rotterdam
27 dms, F H Paul & Stein Bros, Rotterdam
227 bgs, I Levine, Hamburg
100 bgs, C H Timm, Calcutta
SODIUM CYANIDE—845 dms, C Hardy, Havre
515 dms, Chemical Manufacturing Co, Liverpool
280 dms, American Cyanamid Co, Liverpool
SODIUM LAURYL SULFATE—35 cks, Rohner Gehrig, Liverpool
SODIUM PERBORATE MONOHYDRATE—200 bgs, Independent Chemical Corp, Hamburg
SODIUM PHOSPHATE—200 dms, Rotterdam
SPEARMINT—40 cs, Meer Corp, Alexandria
SULFUR, CRUDE—6,902 tons, Dixon Chemical & Research Inc. Coatzacoalos
UREA, SYNTHETIC—3,994 bgs, Chemical Manufacturing Co, Liverpool
VALONIA CUPS—1,683 bgs, Barkey Importing Co, Izmir
6,085 bgs, M E Besignor, Izmir
VANILLA BEANS—7 cs, Balfour Guthrie, Boma
8 cs, Zink & Trieste, Marseille
VETIVER OIL—2 dms, Polarome Manufacturing Co, Port Au Prince

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ASBESTOS FIBER—1,180 bgs, Johns Manville Corp, Lourenco Marques.
500 bgs, Durban
COPRA CAKE—2,240 bgs, Balfour Guthrie, Manila
EARTH COLORS—200 bgs, Naftone Inc, Bremen
FISHLIVER OIL—4 dms, Antwerp
NUTMEG—35 bgs, California Commodities Corp, Singapore
SESAME OIL—40 cs, Winter Wolff & Co, Kobe

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ANTIMONY—40 cks, N Trotter, Middlesbrough
ANTIMONY OXIDE—608 bgs, National Lead Co, New Castle
207 bgs, Hull
ASBESTOS FIBRE—2,400 bgs, Chas Kurz & Co, Lourenco Marques
500 bgs, Davies Turner & Co, Durban
1,760 bgs, Lourenco Marques
BLANC FIXE—1,200 bgs, Rotterdam
CADMIUM—50 cs, Antwerp
CALCIUM PHOSPHATE, DIBASIC—1,504 bgs, Wessel Duval & Co, Rotterdam
GLYCERINE—300 tons, Procter & Gamble Co, Manila
GRAPHITE—1,022 bgs, Asbury Graphite Mills, Tamatave
GYPSUM, CRUDE—600 bgs, S Shapiro Co, Leghorn
15,093 tons, US Gypsum Co, Hanstport
LITHARGE—183 dms, Tampico
NAPHTHA—312,560 bbls, Texas Oil Co, Trinidad
POTASSIUM CYANIDE—25 dms, Chemical Manufacturing Co, Hull
PYRIDINE—218 dms, Marine Midland Trust Co, Antwerp
QUEBRACHO EXTRACT—1,569 bgs, Tan American Corp, Buenos Aires
SODIUM CYANIDE—100 dms, Chemical Manufacturing Co, Hull
295 dms, Chemical Manufacturing Co, Middlesbrough
SULFUR, CRUDE—3,119 tons, E I du Pont de Nemours & Co, Coatzocoalcos
TAPIOCA FLOUR—500 bgs, Manhattan Adhesives Corp, Itajai
UREA—3,989 bgs, Chemical Manufacturing Co, Middlesbrough
3,000 bgs, Nylos Trading Co, Genoa
VANILLA BEANS—78 cs, Chemical Bank, Cristobal
21 cs, Tamatave
WATTLE EXTRACT—400 bgs, Barkey Importing Co, Durban
1,650 bgs, Olson Importing Co, Beira
ZINC CYANIDE—25 dms, Chemical Manufacturing Co, Hull

San Francisco

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AMMONIUM CHLORIDE—199 bgs, C M C Chemicals Inc, Manchester
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CALCIUM CHLORIDE—1,900 bgs, D M Hicks, Antwerp
CALCIUM PHOSPHATE, DIBASIC—661 bgs, Guaranty Trust Co, Antwerp
CASEIN—200 bgs, Pacific National Bank, Rotterdam
125 bgs, Eugenio Lang, Buenos Aires
CASSIA—167 bls, Marine Clearing House, Saigon
166 bls, Chemical Bank, Saigon
125 bls, Saigon
COPPER CYANIDE—40 dms, C M C Chemicals Inc, Middlesbrough
COPRA—500 tons, Cargill Inc, Cebu
500 tons, Procter & Gamble Co, Cagayan de Oro
500 tons, Cargill Inc, Hinigaran
500 tons, Cargill Inc, Legaspi
PALMKERNEL OIL—8 cs, B M T Commodity Corp, Amsterdam
PERCHLOROETHYLENE—13 dms, P W Bellingall Co, Kobe
POTASSIUM CYANIDE—40 dms, C M C Chemicals Inc, Middlesbrough
SESAME SEED—100 bgs, W R Grace & Co, Corinto
100 bgs, Hismoco American Co, Corinto
SODIUM BICARBONATE—197 bgs, C M C Chemicals Inc, Manchester
SODIUM CHLORATE—334 bgs, Marseille
SODIUM CHLORITE—50 dms, Mattoon & Co, Bremen
SODIUM CYANIDE—200 dms, C M C Chemicals Inc, Middlesbrough
SODIUM NITRATE—1,527 tons, Guaranty Trust Co, Tocopilla
3,398 bgs, Guaranty Trust Co, Tocopilla

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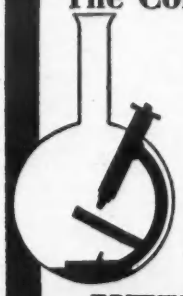

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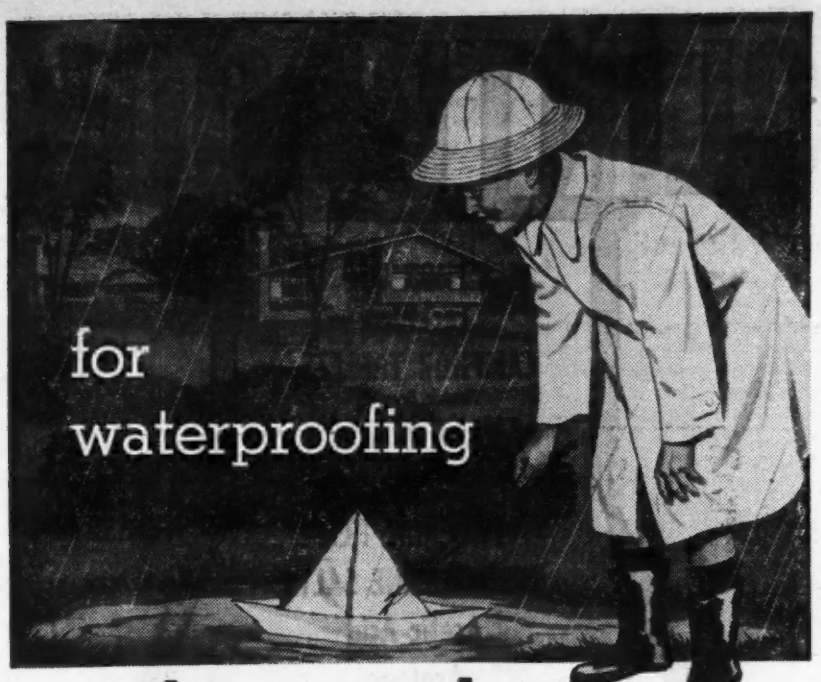

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Coatings Materials

Lead declined one-half cent per pound last Wednesday, pulling oxide with it. Touched-off in the London market by loose supply, the decline soon found its way to Canada, which has no import quotas, and there generated enough pressure to force down American prices. Red lead in carlots was marked down to 13¾ cents for 95 percent lead, 13.95 cents for 97 percent and 14.10 cents for 98 percent; litharge to 13¼ cents, and mineral orange 16.10 cents per pound. This was the only price movement to occur last week.

Price Trends

Advanced
None

Reduced
Lead oxide, ½c. per lb.
Litharge, ½c. per lb.
Mineral orange, ½c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Feb. 14, 1958
103.07	103.07	103.08	101.50

For Current Prices see page 9

Business volume appears to be varying quite widely from one coatings market to another, reflecting the uneven national economic picture. While the great majority of pigments, comprising those that go into architectural and interior finishes, now pass through the slow period that precedes the spring season, metallic finishes used by Detroit are receiving good call from that quarter. The same may be said for resins and plasticizers. The first week of February, said one maker of vinyls, brought sharply higher sales than did the comparable week of January, with indications that the month might prove to be the best February on record.

Cobalt oxide is reported steady at recently reduced levels. The reduction, announced in this space a week ago, amounted to 19 cents per pound, which brought listings for the two ceramic grades quoted by OPD to $1.29 per pound for 70 to 71 percent cobalt and $1.33 for 72½ to 73½ percent cobalt, delivered East of the Rockies. A differential of 3 cents per pound was maintained for shipments to the West Coast.

Copper oxide, also lowered recently, also is reported steady. Reflecting the decline of 1 cent per pound, listings tab red at 47 cents for type I and 45 cents for type II; and black at 46¼ cents. Consuming interest is said to be fair.

Shellac is meeting only light demand, focused chiefly on immediate needs. Orange grades, reflecting the source's official floor levels, have been long unchanged at 36 cents to 39 cents per pound for lemon No. 1, 33 cents to 37 cents for No. 2 and 34 cents for superfine. Bleached grades are similarly steady at 46 cents for bonedry and 56 cents for fully refined in bags, 1,500-lb. lots.

The Census Bureau's monthly release on glue reported a seasonal decline in shipments during December. Only 7,505,000 pounds were shipped, as agains the previous month's 9,174,000 pounds. Since production was only slightly lower—9,108,000 pounds as against November's 9,450,000 — stocks closed the month higher at 36,614,000 pounds as against 35,011,000 a month earlier.

The current price of Argentine casein, a cent below the prevailing level of last year and 2 cents below the recently posted quotation of soya protein, has failed to bring the consuming trade back into the market, a dealer reported last week. In fact, business was found to be at a near standstill, with spotty sales confined to prompt needs.

That market's lethargy was attributed to expectations of consumers that the price of Argentine would fall still lower. However, to some observers the possibility of further decline appeared highly doubtful. France's stated intention to buy in Argentina now that its own supply is used up looked like a strengthening factor as did the currently low supply situation of Australia. The fact that the flush season in Argentina is about over could also help to underpin prices, these observers felt.

Prime Pigments

Cobalt Oxide—As previously reported, sharp price reductions have been put into effect, a move made possible, presumably, by increased availability of ore. Quotations of the two ceramic grades listed by OPD were cut 19c. per pound to $1.29 for 70 to 71 percent cobalt, and $1.33 for 72½ to 73½ percent, delivered East of the Rockies. The 3c. per pound differential for West Coast shipments was maintained.

Copper Oxide—Quotations are reported steady at the higher listings that went on the books a week ago when a 1c. per pound advance in metal prodded up oxide by that amount to 47c. per pound for type I red, 45c. for type II and 46¼c. for black in shipments of 100 to 5,000 pounds f.o.b. producing point.

Lead Pigments—Lead declined ½c. per pound last Wednesday and pulled oxide with it. Touched-off in the London market, the decline soon was reflected by price listings in Canada, where no import quotas prevail, and there generated enough pressure to force down American prices.

Red lead in carlots was marked down to 13¾c. per pound for 95 percent lead, 13.95c. for 97 percent and 14.10c. for 98 percent; litharge to 13½c. and mineral orange to 16.10c. per pound.

Tone of the market since the first of the year would indicate the return of some of the problems that badgered it during most of last year. The crux of these problems is oversupply, which brings pressure to bear on all markets. Last October, the president's directive restricting imports to two-thirds the average volume of the prior two years temporarily removed such pressure from American producers and permitted prices to regain some lost ground. But a 1c. decline on January 24 signalled trouble again and proved to at least one observer that it is very difficult if not impossible to insulate the domestic market from the vicissitudes of a sloppy world market. This observer said last week that while the president's directive has been of some help, and should continue to be, a sounder approach would be a program of voluntary production cutbacks by the major producing countries.

Lacquer Materials

Generally favorable reports on business volume have been making the rounds, with most of the credit going to Detroit where demand for coatings and vinyl fabrics has soared with rising output of new cars. One maker of vinyl plasticizers said last week that February volume showed a sharp increase over January and may well prove the best on record for that month. Phthalates are all doing very well, but it is not known whether this has any connection with the recent sharp price declines.

Rumors to the effect that the decline in phthalic anhydride and its esters would not stick were greeted more than dubiously by informed sources. They pointed out that there were no indications whatever that the newcomer who touched off the industry-wide reduction had any intention of altering its plans.

No matter how high demand soars or how low prices fall, the DOP market seems always to show a degree of distemper, with oversupply the most conspicuous symptom. When DOP was trimmed with the rest of the phthalates, there was not much confidence expressed that shading would thereby be eliminated or even appreciably reduced.

Natural Resins

Copal Gum—Fill-in requirements have been moving some material, but the market remains generally listless without

OPD'S TRADE NAME CHEMICALS MARKET REPORT ON PAGE 44

Coatings Materials

much hope of resumed activity until the season of architectural coatings arrives with the spring thaw. Supply has certainly been adequate to take care of the spotty demand prevailing at present.

Dammar Gum—No price action has been recorded since last month's decline of ½c. per pound in East India Batu nubs and chips, which settled that material at a range of 9c. to 10c. per pound in bags. Business volume continues light and restricted to prompt needs, supply being quite adequate.

Shellac—This market was not much lievlier last week that its neighbors in the natural resins field. Light demand focused itself on immediate shipment. Orange grades, reflecting the source's official floor levels, are long unchanged at 36c. to 39c. per pounr for lemon No. 1, 33c. to 37c. for No. 2 and 34c. for superfine. Bleached grades are likewise steady at 46c. for bonedry and 56c. for fully refined in bags, 1,500-lb. lots.

Miscellaneous

Casein—Argentine casein for shipment was quoted at 17¾c. to 18¼c. per pound, unchanged from a week earlier. This price, a cent below the prevailing level of last year and 2c. below the recently posted quotation for soya protein, has failed to bring the consuming trade back into the market. In fact, business remained at a near standstill, with spotty sales confined to prompt needs.

One source attributed the market's lethargy to expectations of consumers that the price of Argentine would fall still lower. The possibility of further decline, however, seemed doubtful. For one thing, France recently reported that its own production has been used and that it may have to order material from Argentina to meet the remainder of its seasonal needs. This, it is felt, will contribute some strength to the market. The fact that the flush season in the Argentine is about over is another factor that should wield some strength in the market, despite currently heavy stocks.

Australian supply, being at a seasonal low, remains closely held and firmly quoted around 20c. per pound for shipment in March, minimum one carlot. Sparsity of offers from that quarter is another element that should have the effect of underpinning Argentine quotations.

New Zealand and American casein moved last week in normal volume to established outlets. Stocks were adequate to meet current needs.

Glue—The following figures compiled by the Bureau of Census indicate production, shipments and stocks of bone and hide glue in thousands of pounds during December with November's figures shown for comparison:

	Dec.	Nov.
Production		
High glue, total	4,302	4,543
Low grade	2,105	2,057
Medium grade	1,576	1,409
High grade	624	753
Extra high grade	477	315
Bone glue, total	4,526	4,922
Green	3,070	3,570
Extracted	1,456	1,352
Glue, total	9,108	9,456
Shipments		
High glue, total	4,312	4,674
Low grade	1,825	1,892
Medium grade	1,371	1,540
High grade	881	996
Extra high grade	235	246
Bone glue, total	3,193	4,500
Green	2,065	3,081
Extracted	1,128	1,419
Glue, total	7,505	9,174
Stocks		
High glue, total	24,019	23,749
Low grade	8,801	8,072
Medium grade	8,026	8,425
High grade	5,226	5,488
Extra high grade	1,936	1,764
Bone glue, total	12,595	11,262
Green	9,246	8,241
Extracted	3,349	3,021
Glue, total	36,614	35,011

Naval Stores

Pine Gum—For the week ended January 31 the average price per standard barrel of commercial crude pine gum was reported at $23.32 as compared with $23.25 the previous week and $20.79 a year ago. The volume of gum deliveries to plants amounted to 2,100 barrels as against 2,450 the previous week and $20.79 a year ago. Content per barrel averaged 7.63 gallons of turpentine and 296.6 pounds of rosin. Gum grading percentages ranged as follows: WW, 2; WG, 3; N, 27; M, 49; and K and below, 19.

Rosin—Trading got off to a dull start during the week ended February 6, but stronger export demand, beginning in mid-week and holding to the close, pushed total sales above the previous week's light volume. Supply remained tight, giving prices a firm tone. Over-all sales were tabbed at 2,356 drum equivalents, distributed among drums, 37 percent; bags, 3 percent; tankcars, 4.2 percent; and export drums, 55.8 percent.

Rosin, Gum
(USDA, per 100 lbs.)

	Fri. Feb. 6	Mon. Feb. 9	Tues. Feb. 10	Wed. Feb. 11	Thurs. Feb. 12
Drums—					
K		$8.60[2]	...	...	...
M	$8.55	...	...	...	...
N		...	...	$8.53	...
WG	8.93[1]	...	...	8.75	
WW	9.23[1]	...	$9.15	8.99	$9.05[1]
Bags—					
G	8.10[1]	...	8.10[1]	...	...
WW	9.00	...	...	...	8.94

Tankcars (for week ended February 12).

Sales, USDA
1,048* 160* 467* 240* 289*

New York
(Per 100 lbs., c.l., Friday)
WW, $10.40; WG, $9.85; K-M, $9.75.

Turpentine, Gum
(USDA, per gal., 7.2 lbs.)

	Fri. Feb. 6	Mon. Feb. 9	Tues. Feb. 10	Wed. Feb. 11	Thurs. Feb. 12
Price	.523	.523	...	.525	.555[1]
Sales	4,000[1]	10,000[1]	...	12,000[1]	8,000[1]

* Drums equivalent, ¶ Gallons, ‡ Average price.
[1] G or better.
[2] K or better.

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Trade Name Chemicals

—Continued from page 44

concentrations against microorganisms. They are therefore applicable as preservatives for pharmaceuticals and cosmetics.

Chemically Processed Oils

Two new drying oil products have appeared on the market within the past two weeks. Degen Oil & Chemical Company, Jersey City, N. J., is now offering commercial quantities of a product under the trade name of **"Polytung Oil."** This is tung oil processed by high temperature thermolizing, designed to yield good results in clear oil coatings and in cold cut varnishes.

Thermolized tung oil as such is nothing new. In fact, it came on the market in the early 1930's. This **"Polytung Oil,"** however, is said to be miscible with many normal oil insoluble resins, and to lend itself particularly well to fortifying plasticizers for vinyls, chlorinated rubber, and cellulostic coatings.

The other new oil product just put on the market is a new low-cost distilled tall oil offered by Emery Industries, Inc., under the trade name of **"Emtall 662."** Among the unusual features claimed for this oil is its 4 - 6 Gardner-Holdt color, its less than 1 percent unsaponifiable matter, its remaining liquid at low temperatures even though it contains 50 percent rosin, and its low price of less than 7c. per pound in tankcars, f.o.b. Nitro, W. Va.

"Emtall 662," by reason of its low odor level, light color, and unusual low unsaponifiable matter could be a low-cost major raw material, or a low-cost blending material with higher cost raw materials used to lower overall material costs in the manufacture of such products as liquid soaps, flake or bar soaps, cleaners, condensates, alkyd resins and esters.

One of the most versatile of chemically processed oils is **"Kelsol"** a product of Spencer Kellogg & Sons, Inc. It is a vegetable drying oil chemically modified so that it is compatible with both water and most organic solvents used in organic coatings. Water solutions are clear when diluted with water to approximately 45 percent solids. At solids content between 25 and 45 percent **"Kelsol"** forms an emulsion which separates on standing but can be remulsified by simple shaking. At less than 25 percent solids **"Kelsol"** forms a stable smooth emulsion.

The price of **"Kelsol"** is 27c. per pound, tankcars, delivered.

Enzymes

New uses for enzymes are increasing steadily. Areas of industry in which enzymes are in good demand are in foods and beverages to convert the starch to dextrins and sugars and to lower viscosity, and to remove oxygen from packaged food products of all varieties to increase shelf-life and prevent oxidation; in textiles to desize fabrics sized with starch, glue or gelatin and in the preparation of starch adhesives and sizings for textiles and paper.

Three enzymes marketed by Takamine Laboratory are **"HT-44," "DeeO"** and **"Clarase."** **"HT-44"** contains a standardized mixture of amylolytic and proteolytic enzymes. According to Takamine, one desirable fact about **"HT-44"** is that it contains the enzymes of a strain of bacteria which thrives at high temperature which means the heat stability of **"HT-44"** is superior. The price of **HT-44"** is 27c. per pound, 100 pounds and over.

"DeeO" is an enzymatic preparation consisting of glucose oxidase and catalase. It is used for the removal of glucose in the presence of oxygen or hydrogen peroide, and conversely, for the removal of oxygen in the presence of glucose or glucogonic substances. The price of **"DeeO"** is $5 per pound, 1 ounce lots.

Takamine's **"Clarase"** is an alpha-amylase with liquefying and dextrinogenic activity plus considerable saccharogenic action. It is applicable where turbidity due to the presence of starch is unwanted. **"Clarase"** comes in four concentrations as **"Clarase Pectin, 300, and 900."** They are priced at $3.85, $4.25 and $12.75 per pound, 100 pounds and more in that order.

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Oils, Fats and Waxes

Upward price trend of coconut oil and copra was the feature of the oils and fats market last week. Coconut oil scored further advances reaching the high levels established last November, while copra was boosted to the highest level since March, 1953. The strength of both materials was the result of an active demand for European account. Offers for shipment were scarce and well held.

Trading in most vegetable oils was light and spotty. Cottonseed oil remained unchanged and steady. Soybean oil was firmer and moved at slightly higher prices. Peanut oil also was stronger and sold at an advance of ¼ cent per pound. Corn oil was maintained at former levels.

Buying interest in tallow and greases was quiet. Prices were without change and farily steady, despite slow business.

Linseed oil demand was confined to fill-in needs. Price schedule was maintained at former levels. Tung oil, while quiet was closely held at unchanged quotations. Oiticica also was maintained at prevailing prices. An easier tone developed in rapeseed oil and market was reduced fractionally with the lower cost of replacements. Brazilian castor oil moved in moderate volume for prompt needs. Replacements were unchanged and steady, reflecting the scarcity of offers of prompt shipment from Brazil. Crude menhaden oil was slightly lower. Trading was slow, despite improved inquiry for export. Cod oil also was lower for shipment due to some selling pressure at primary sources.

Oilmeals were lower. Cottonseed meal was unsettled, declining $2 per ton. Soybean and linseed meals also were inactive and dropped $1 per ton.

Price Trends

Advanced

Carnauba wax, crude, 1c. to 2c. per lb.
Refd., 2c. per lb.
Coconut oil, ½c. per lb.
Copra, $5 per ton.
Lard, cash, ¼c. per lb.
Peanut oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Soybean oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb.

Reduced

Beeswax, refd., 2c. per lb.
Cocoa butter, 1c. per lb.
Cod oil, ⅛c. per lb.
Cottonseed meal, $2 per ton.
Linseed meal, $1 per ton.
Menhaden oil, crude, ⅛c. per lb.
Rapeseed oil, ¼c. per lb.
Soybean meal, $1 per ton.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Feb. 14, 1958
115.77	116.70	119.89	106.61

For Current Prices see page 9

Vegetable Oils

Coconut—Crude continued to advance under active demand from Europe. Prompt shipments were lifted to 19¼c. per pound, tankcars, f.o.b. Pacific coast, prompt shipment. Stocks on spot New York were higher at 21c. per pound, tankcars, and 20½c. late February.

Castor—Trading was spotty. Domestic grades were held at former levels. No. 1 Brazilian was maintained at 14¾c. per pound, tankcars, New York, prompt delivery.

Import of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	.....	600,000
Previous week	.....	600,000
Corresponding week, 1958	285,000	1,610,000
Total this year	5,946,250	10,702,000
Corresponding period, 1958	5,973,450	15,176,000

Corn—Trading was light. Crude was maintained at 11⅜c. per pound, tankcars, f.o.b. mills. Refined was unchanged at 15.1c. per pound, tankcars, New York, prompt.

Cottonseed—Futures were dull and featureless last week. Trading was light and mixed. Market tone was steady, with prices practically unchanged. Cash oils were quiet, but well held. Refined salad oil was maintained at 14¼c. per pound, tankcars, New York, prompt delivery. Crude oil remained steady. Tankcars were held at 10¾c. to 10⅞c. per pound, tankcars, f.o.b. mills; 10⅞c. to 11c., southeast; 10¾c., Lubbock and Waco.

CCC sold about 183 tankcars of crude

Oils and Fats Derivatives: December

Following statistics are compiled by the Bureau of Census covering oils and fats derivatives production, consumption and factory and warehouse stocks in December and November, 1958 (in thousands of pounds).

	Production Dec. 1958	Production Nov. 1958	Consumption Dec. 1958	Stocks Dec. 31, 1958
Chemically dehydrated castor oil [1]	963	1,546	NA	2,831
Deodorized oil [2]	92,947	79,582	12,293	11,296
Fatty acids: [1]				
Coconut-type fatty acids including coconut, babassu, and palm kernel; and such fractionated fatty acids as lauric, caprylic, capric, and myristic	5,815	5,369	NA	7,268
Fish and marine mammal fatty acids	.... [3]	.... [3]	NA	695
Tall oil fatty acids (containing 90% or more free fatty acid, excluding rosin acids)	8,535	10,884	NA	12,164
Oleic acid, including white oleic and red oil	8,417	7,622	NA	11,056
Stearic acid (40-50% stearic content)	5,586	5,776	NA	4,345
Other stearic acids (over 50% stearic content), high palmitic (over 60% palmitic), hydrogenated animal and vegetable fatty acids	10,909	10,677	NA	7,677
Unsaturated unhydrogenated animal fatty acids (other than oleic)	9,251	8,809	NA	13,151
Unsaturated unhydrogenated vegetable fatty acids	3,524	3,757	NA	9,957
Glycerin, crude (100% basis) [4]	21,361	18,923	22,891	16,258
Glycerin, refined, all grades (100% basis) [4]	21,998	20,064	15,742	42,149
Grease oil, lard oil, and tallow oil [1]	3,669	3,212	NA	4,513
Hydrogenated animal fats and oils: Edible	3,617	4,080	2,208	1,969
Inedible	2,998	3,724	3,272	2,998
Hydrogenated vegetable oils—Edible:				
Cottonseed	23,949	26,347	21,951	10,172
Soybean	150,120	139,579	130,272	48,250
Other	4,808	6,653	5,259	3,203
Inedible	276	.... [3]	1,104	1,178
Margarine [1]	[5]148,915	[5]129,009	NA	38,313
Mono-and di-glycerides, edible	6,627	7,896	3,813	4,210
Oleo oil and stearin, animal, edible	2,748	[5]2,682	764	1,987
Shortening [1]	161,494	176,594	NA	127,250
Stearin, animal, inedible [1]	568	428	NA	596
Stearin, vegetable oil winter	15,196	[5]16,106	12,354	22,339
Tall oil, crude	46,410	53,705	44,253	93,203
Tall oil, refined (containing less than 90% free fatty acids excluding rosin acids)	9,308	11,552	7,557	16,244
Winterized oil	62,793	65,368	32,942	43,490

[5] Revised.
NA Not available.
[1] Data for stocks exclude quantities held by consuming factories.
[2] Winterized-deodorized oil, hydrogenated-deodorized oil, and cooking and salad oil not included.
[3] Not shown to avoid disclosure of figures for individual companies.
[4] Includes data for synthetic glycerin.
[5] The quantities, in thousands of pounds, packaged are as follows:

Margarine	December 1958	November 1958
1 pound units	139,077	119,373
Bulk: Pats or chips	2,069	1,746
Other	7,783	7,859

The sum of these items may not agree with the production total shown above because some margarine is not packaged during the same month in which it is produced.

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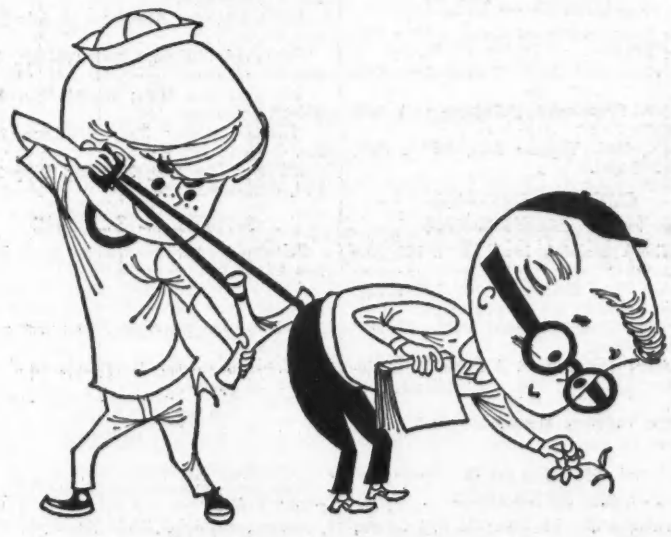

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Oils, Fats and Waxes

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Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, February 13, follow:

	Sales	High	Low	Close
		Cents per pound		
March	157	13.15	12.95	13.13S
May	171	12.94	12.80	12.94S
July	107	12.77	12.64	12.75@12.78
Sept.	26	12.40	12.35	12.45@12.46
Oct.	11	12.31	12.30	12.33@12.39
Dec.	1	12.19	12.19	12.13@12.30

Total sales and switches 473 contracts.

Linseed—Demand was restricted to fill-in needs. Prices were held at former levels. Deliveries against former contracts continued to show moderate improvement. Raw oil was quoted at 12.8c. per pound, tankcars, f.o.b. Minneapolis, February-April and 13c., May-July.

Flaxseed—The second Argentine official estimate placed the flaxseed crop at 600,000 tons compared with the first estimate of 610,000 tons.

Peanut — Market was strong and fractionally higher. Crude was sold at 12c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined was lifted to 15½c., tankcars, New York, prompt delivery.

Rapeseed—Demand was confined to actual needs. Prices were easier and off ¼c. Tankcars were quoted at 13½c. per pound, New York, prompt delivery. Drums ranged from 15c. to 15½c. spot, as to quantity.

Soybean — Announcement of Spanish tenders served to stiffen the market. Crude was sold at 9⅜c. per pound, tankcars, Decatur, February shipment. March was quoted at 9⅜c., same basis. Refined salad was higher at 16⅝c. per pound, tankcars, New York, prompt delivery.

Official soybean oil tenders to Spain call for 70,000 tons of refined oil for shipments of 10,000 tons each month March through September, and 96,000 tons of crude for shipment as follows: 20,000 tons in March; 8,000 tons in April; 20,000 tons, May and June; 12,000 tons, July and 8,000 tons, August and September.

Tung—While trading was slow, the market remained unchanged and steady. Tankcars were held at 21c. to 21¼c. per pound, tankcars, New York, prompt delivery, depending upon seller. Drums ranged from 22½c. to 23c. per pound, spot, according to quantity. Domestic oil was nominal at 20¾c., tankcars, f.o.b. mills.

Miscellaneous

Cocoa Butter — Market was unsettled and lower. Stocks ranged from 72c. to 77c. per pound, spot, as to quantity.

Copra — Increased demand for European account further stiffened this mar-

—Continued on page 68

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1—5000 gal. SS Horizontal Storage Tank, 23' x 6' ¼" Plate, 4B Inside Finish, SS Cradles.
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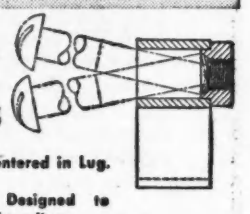

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Buflovak Model J Vac. Shelf Dryers, 20 shlvs 2½" centers. Complete
AT & M 40" Solid Steel Basket Centrifuge, 25 HP 2 speed mtr.
Raymond Size #50 Stainless Steel Imp Mill, 100 HP and 60 HP mtrs
Oliver 8' x 10' Rot. Cont. Vacuum Precoat Filter w/Vacuum Pump
Raymond 5 Roller Low Side Mill, w/ Cyclones, Fans, extra parts
2-Groen 60 Gal Kettles, S. S. Model RA, Agitated, 100 PSI

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CENTRIFUGES — FILTERS — EVAPORATORS — CRYSTALLIZERS

1—Bird 32" x 50" solid bowl continuous Centrifuge, 316 S.S.
4—Sharples C20 Super-D-Hydrators, 316 S.S.
2—Sharples PN14 Super-D-Canters, 316 S.S.
1—AT&M 26" suspended Centrifuge, perforated basket, 316 S.S.
2—Oliver 8' x 8' Precoat rubber covered Rotary Vacuum Filters.
4—Sperry 36" rubber covered Plate & Frame Filters, 30 chambers.
4—Sperry 36" cast iron Plate & Frame Filters, 30 chambers.
4—Sperry 42" aluminum Recessed Filters, 36 chambers.
4—Shriver 36" wood Plate & Frame Filters, 44 chambers.
5—Struthers-Wells 8' dia. x 24' high rubber lined Vacuum. Crystallizers.

PULVERIZERS AND MILLS

4—Mikro Pulverizers, 3TH, 2TH, motor driven.
2—Abbe 5' x 16' brick lined Mills.
3—30" dia. Stainless Steel Micronizers complete with Hoppers, Conveyors, etc.

KILNS AND DRYERS

1—Traylor 11' x 155' Rotary Kiln, 7/8" shell welded, 2 tires.
1—Vulcan 8' x 125' Rotary Kiln, 3/4" shell riveted, 2 tires.
1—Vulcan 8' x 50' Rotary Kiln, 5/8" shell welded, 2 tires.
2—Rennenberg 6' x 60' Rotary Kilns, 5/8" shell riveted.
1—Proctor & Schwartz 8' wide x 60' long Conveyor Dryer, Stainless Steel Belt.

RUBBER LINED TANKS

4—3400 gal. 8' x 8' with Nettco Turbo Agitators, 15 HP motors.
1—4000 gal. 10' x 7'6" with Nettco Turbo Agitator, 10 HP motor.
1—4500 gal. 9' x 9' with Nettco Turbo Agitator, 3 HP motor.
1—5000 gal. 9' x 10' with Nettco Turbo Agitator, 15 HP motor.
5—8500 gal. Vertical Storage, 8'6" x 16' x 8' cone.
1—10,500 gal. Horizontal Storage, 10' x 18'.
1—13,000 gal. Horizontal Storage 8' x 35'.

STEEL TANKS

4—2000 gal. 7' x 7' with Nettco Turbo Agitators, 10 HP motors.
1—3000 gal. 8' x 8' with patterson Turbo Agitator, 10 HP motor.
1—5200 gal. 10' x 9' with Patterson Turbo Agitator, 10 HP motor.
15—Storage Tanks: 3800; 6000; 9000; 10,000; 15,000; 47,000 gals.

OTHER ITEMS

3—Worthington, I.R. Compressors: 1000, 500 & 365 cfm, 30 psi.
4—Worthington, I.R. Vacuum pumps, 1000 and 500 cfm.
11—Steel Buildings 20' to 80' trusses.
2—Shepard Niles 20 ton Overhead Cranes.
7—Dorr Thickeners; and 16' dia. with Tanks.
15—Nettco WT37, WT27, Agitator Drives, 10 & 15 HP.
1—Bemis 50# Bag Packer with Sewing Machine, Conveyor and Flattener.
125—LaBour, Durco, Worthite, Duriron and Stainless Steel Centrifugal Pumps 2" to 6" with motors.

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BRILL FOR VALUES

REACTORS - KETTLES - EVAPORATORS - CONDENSERS - TANKS

1—4000 gal. 347 S.S. jacketed Reactor, 8' x 8'8", 150# internal.
2—1500 gal. Pfaudler, glass lined, jacketed, agitated Reactor.
1—500 gal. Walters, 304 S.S. jacketed, agitated Reactor, 4' x 5'.
1—500 gal. Blaw-Knox, 347 S.S. jacketed, agitated Reactor.
1—1400 gal. Blaw-Knox, steel, jacketed, agitated Reactor.
1—550 sq. ft. Buflovak, monel, single effect Evaporator.
1—250 sq. ft. Buflovak, 304 S.S. forced circulation Evaporator.
1—20 sq. ft. Buflovak, 304 S.S. forced circulation Evaporator.
1—3500 gal. 304 S.S., jacketed, agitated Tank, 9' x 7'.
1—7500 gal. 316 S.S. Vertical Storage Tank, 7' x 25', 50 PSI.
1—20,000 gal. 347 S.S. Vertical Storage Tank, 12' x 23'.
1—750 gal. nickel clad Mixing Tank, 125# internal, with nickel coils.
1—4000 gal. Haveg, vertical Tank, 8' x 12'.
1—12,000 gal. horizontal, steel Pressure Tank, 7'6" x 36', 200 psi.
8—Stainless Heat Exchangers; 1220, 942, 786, 536, 396, 315, 250, 157 sq. ft.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.
1—30" dia. x 20', 304 S.S. Bubble Cap Column.

CENTRIFUGES

1—Bird 18" x 28", 316 S.S. Solid Bowl, Continuous.
1—Bird 24" x 38", Monel, Solid Bowl, Continuous.
1—Bird 18" x 28", steel, Solid Bowl, NEW.
2—Sharples PY14, PN14, Super-D-Canters, 316 S.S.
2—Sharples C20, C27 Super-D-Hydrators, 316 S.S. XP construction.
1—Sharples H2 Nozzlejector, 15 HP, 304 S.S.
1—Bird 48" Suspended Fume tight 316 S.S. Perforated Basket.
1—Bird 40" suspended, 347 S.S., imperforate basket, 1800 RPM.
1—Bird 40" suspended, rubber covered, perforated basket.
1—Hercules 40" center-slung, rubber covered, perforated basket.
1—Tolhurst 30", 304 S.S., underdriven, perforated basket.
2—Sharples #16, 304 S.S., 3 HP motor.

FILTERS

2—Oliver 5'3" x 8' Steel Rotary Vacuum, vapor-tite housings.
2—Sparkler 33S28 Filters, 150 sq. ft., 304 S.S.
1—Niagara 36H110 horizontal Filter, 110 sq. ft., 304 S.S.
1—Sparkler 33-S-17 steel Filter, 92 sq. ft.
1—#12 Sweetland Filter, 48 leaves, 3" centers, 640 sq. ft.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

DRYERS

1—Devine Vacuum Shelf with 19—59" x 78" shelves.
1—Devine Vacuum Shelf with 10—40" x 43" shelves.
2—Overton 42" x 120", Atmospheric, Double Drum.
2—Devine 5' x 12', 4' x 9', Atmospheric, Single Drum.
2—Devine 3' x 8', TEFLON Coated, Rotary Vacuum.
2—Louisville Rotary Steam Tube, 5' x 20', 6' x 50'.
2—Rotary Kilns, 6' x 50', 9' x 130'.
3—Rotary Dryers; 6' x 50', 5'6" x 50', 5' x 30'.
2—Link Belt; 7'5" x 25' Monel, 6'4" x 24' 316 SS, Roto Louvre Dryers.
3—Louisville 8' x 50' Stainless Steel lined Rotary Dryers.

MIXERS

1—Baker Perkins #16TRM, 150 gal., jacketed, sigma blades, Vacuum, 50 HP motor.
5—Baker Perkins #15 JIM2, 100 gal. jacketed, sigma blades, 20 HP. motors. UNUSED.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
3—1000# Powder Mixer, 7 1/2 HP XP motor.
5—Steel, jacketed Powder Mixers; 50, 225 and 350 cu. ft.

PULVERIZERS — MILLS

1—Hardinge 4½' x 24" Conical Ball Mill.
2—Abbe 5' x 6', 4' x 5', silex lined Pebble Mills.
5—Jeffrey Hammer Mills; 20" x 12", 15" x 8", motor driven.
1—FitzMill model D, 304 S.S., 7½ HP motor.
2—Kent, Ross, 6" x 14" Three Roll Mills.

MISCELLANEOUS

3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
3—25 ton Freon Refrigeration Units.
4—Rotex Sifters; 40" x 84", 60" x 84", Double Deck.
3—Robinson Gyratory Sifters, 30" x 104", Triple Deck.
8—Stokes DD2, B2, "R", and "F" Tablet Presses.
10—Nash Vacuum Pumps; H6, L5, L3, TS7, #2, MD572.
25—Chlorimet, Durimet and Duriron Centrifugal Pumps, 1½" to 6".

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BONUS BUYS

16—Baker Perkins Size #17 Sigma-Blade Mixers, Jkt. 200 gal. working capacity, Screw Tilt, 30 HP motors and drives.
3—W. & P. 50 gal. Sigma-Blade Mixers, jacketed, screw tilts.
1—1400 gal. T316 SS Vacuum Still, ASME 175# wp.
1—Denver 4' x 10' Ball or Rod Mill, 60 HP (like new).
1—Bird 18" x 28" Continuous Centrifugal, T304 SS.
2—Vacuum Shelf Dryers, 108 sq. ft., T316 SS.
1—F. J. Stokes 5' x 8' Rotating Vacuum Dryer, T304 SS, ASME, 1953.
3—Pfaudler 750 gal. Glass-Lined Reactors, Model "R", Jkt. & Agit.
1—Pfaudler 47 sq. ft. Glass-Lined Condenser, 1951.
1—Ross 6" x 14" 3-Roll Mill, Hi-Speed, Anti-Friction Bearings, 1953.
1—Crosley 6'8" x 7'6" Batch Pebble Mill, 1600 gal., Buhrstone.
3—Sharples Super-D-Hydrators, C-20, C-27, T316 SS.
7—Sharples #16 Super Centrifuges, T304 SS.
2—Nickel-Clad Evaporators, 400, 250 sq. ft., vert. Long-Tube.
1—Pfaudler 300 gal. glass lined Reactor, jkt. & agit.

EQUIPMENT IN STOCK

MILLS (BALL—PEBBLE—ROD)

1—7' x 24' Compeb, 450 HP.
1—7' x 15' Rod Marcy, 300 HP.
4—5' x 22' ball-tube, Allis-Chalmers, 150 HP, 2" liners.
1—4'6" x 16" Hardinge conical ball.
1—4' x 10' Denver, ball, 60 HP.
1—6' x 16' ball-tube, Allis-Chalmers.
2—4'6" x 12' contin., Patterson.
1—8' x 10' pebble, batch, Patterson.
1—6' x 8' pebble, contin., Patterson.
1—6' x 8' pebble, batch, Patterson.
1—6' x 5' pebble, batch, Porter.
1—5' x 6' pebble, batch, Abbe.

FILTERS, PRESSURE

1—510 sq. ft., vert., Niagara #510-28, T316 SS (Like New).
1—151 sq. ft., Sparkler #33-S-28, T304 SS leaves.
1—110 sq. ft., horiz., Niagara #36H-110-3, T304 SS, 1954.
1—80 sq. ft. Niagara, T304 SS, Jktd., #80-30.
1—45 sq. ft., Niagara, T304, SS.
1—Sweetland Filters, #12, 7.

CENTRIFUGALS, BASKET

1—48" suspended, T304 SS, A.T.&M.
1—40" suspended, steel, Bird.
1—36" centerslung, bronze, Tolhurst.
1—30" suspended T304 SS, Fletcher.
1—30" underdriven, T304 Fletcher.
1—26" susp., 1954 Tolhurst.
1—12" underdriven, T316 SS, Fletcher.

DRYERS, DOUBLE DRUM

42" x 120" Buflovak—atm.
42" x 120" American—atm.
42" x 90" Buflovak—atm.
36" x 84" American — VACUUM.
32" x 72" Buflovak—atm.
32" x 52" Buflovak—atm.
22" x 38" Witteman—atm.

DRYERS, VACUUM SHELF

356 sq. ft. Devine, Steel.
108 sq. ft. ANDERSEN, T316 SS
80 sq. ft. Devine, UNUSED.
36, 24, 12 sq. ft. Stokes, steel.

CRUSHERS

Gyratory, Kennedy, #49S, 100 HP, 12-1/2", 350 TPH.
Double-roll, 24" x 24", 20 HP.
Sawtooth, Robinson #13.
Jaw, 20" x 6", Bacon.
Jaw, 18" x 9", Mitchell, 25 HP.
Jaw, 11" x 15" Lang.

MILLS PULVERIZERS

2—Raymond Roller Mills, #3036 (3-roll), hi-side; #15 (6-roll) 66" low-side.
1—Hammermill, 400 HP, 47" x 60", Penna. CRUSHER, #5060, 1952, non-clog, UNUSED.
1—Hammermill, 60 HP, Penna. Crusher, #C-3-30.
1—Pulverizer, 75 HP, Babcock & Wilcox, #E-32, ball type.
1—Hammermill, 50 HP, Jeffrey.
1—Hammermill, 25 HP, Jeffrey.

ROTARY DRYERS & KILNS

1—11' x 155' Kiln, 3/4" shell.
1—8' x 170' Kilns, brick-lined.
1—8' x 125' Vulcan Kiln, 3/4".
1—8' x 115' Kiln, brick-lined.
1—5'6" x 32', 3/8" shell.
1—8' x 70' Dbl. shell, Hardinge.
1—6' x 50' steam tube, Louisville.
1—5'6" x 50' Renneberg, 3/8" shell.
1—4'8" x 33', 3/8" shell.
1—4'6" x 40' Ruggles-Coles, 5/16".
1—4' x 24' brick-lined (Kiln).
1—4' x 12'6" Sturtevant, SS.
1—3' x 15', Everdur metal shell.
1—Link-belt "Mono-tube," 10'.
3—Link-belt "Roto-Louvres"; #604-24, T316 SS; #310-20.

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RAYON MANUFACTURING PLANT (TENNESSEE)

21—200 gal. Baker Perkins jkt. Sigma-Blade Mixers, #17-VII.
12—30" Sperry P. & F. Filter Presses, C. I., 17 chambers.
2—30" Sperry "Ni-Resist" P. & F. Filter Presses, 20 chambers.
3—Nash H-5 and L-4 Hytor Vacuum Pumps.
10—Stainless Steel Acid Pumps, 6"—4"—3"—2" sizes.
7—Steel Shell & Tube Heat Exchangers—440 & 1400 sq. ft.

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ECH SPECIALS

Devine Vac. Shelf Dryer; 59" x 78", dbl. door.
SS Spray Dryer, 3' x 10'; complete unit.
2—Mikro's—Bantam & 1SL with 5 HP motor.
Pfaudler 1,500 gal. Glass Tank; closed top.
Nash Hytor Vac. Pump #6, 40 HP motor.
Gruendler "BB" Whirlbeater Hammer Mill.
Day 40 gallon Pony Mixer with motor.
Patterson ¾ gal. SS Jktd. Lab Mixer, 2 HP.
Gen. American 42" x 120" Twin Drum Dryer.
BP Jktd. Mixer 100 gal. working cored arms.

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EVAPORATORS—Single effect—All Monel 290 sq. ft. 150 sq. ft. Complete.
CENTRIFUGES—Tolhurst 26" Monel; 40" S.S. Susp; 40" Rubber Covered.
FILTER PRESSES—Shriver 36" x 36"—34-1½" Rubber Covered Frames.
PFAUDLER—G L Kettles 75, 200, 300, 600 gal.
HARDINGE Conical Ball Mills, 4½' x 16".
MIXER, DAY—2½ gal. D.A. Sigma, Jack., Vacuum, 5 H.P.
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Vac. Shelf & Rotary Dryers.
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#2 Sweetland 12 Stainless covered leaves.
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Lead Lined Kettle 250 gal.
Steel, Alum & Copper 5 to 2,000 gals.
MILLS—Raymond #00 Pulverizer 30 HP complete. Also #0000.
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Change Can Mixers 8, 15, 40, 150 gal.
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Blystone 3000# horiz. spiral Mixer.
Dry Spiral Mixers 50 to 3000#.
Lancaster 6' dia. vert. mixer 25 HP.
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Gould 75 HP Centrifugal 250 PSI.
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1—Goslin Birmingham 10' x 16' rotary vacuum filter.
2—500 gallon stainless steel portable alkyd resin kettles.
5—80 gallon stainless autoclaves, agitated.
1—750 gallon Pfaudler glass lined jacketed and agitated reactor.
3—Fitzpatrick mills models D and K, stainless.
7—Stokes tablet presses RD-3, DS-3, T, R and 294.
9—Rotex sifters 40" x 84", 40" x 120", 60" x 120", 1 and 2 deck.
1—4-TH Mikro pulverizer, 40 HP
4—Simpson 24" and 36" diameter intensive mixers.
2—20 gallon and 50 gallon Pfaudler glass lined jacketed agitated reactors.
1—Buffalo 32" x 52" double drum dryer.
3—Sparkler 33-S-17 rubber lined filters, 92 sq ft.
4—Stainless steel tanks 1200, 3300, 6000, 7000 gallon capacities.

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1—Pfaudler 750 gal., glass lined jacketed & agitated Reactor, 15 HP motor.
1—Pfaudler 200 gal., glass lined, jacketed, agitated Reactor.
1—Nooter 750 gal. Reactor, 300 PSI jacket.
1—72" x 30' Stainless Steel Column, 20 bubble cap trays, type 347.
2—5600 gal. Tanks (1) Stainless Clad, (1) Rubber Lined.
1—Raymond #3036 High Side 3 Roll Mill.
8—Jeffrey Hammer Mills, 8"x15"; 12"x20"; 18"x24"; 24"x36" motor driven.
1—Hardinge 8'x30" Conical Ball Mill.
3—Tolhurst 40" Stainless, Suspended, Centrifugals, perforated baskets.
2—Fletcher 40" Steel, Suspended Centrifugals, perforated baskets.
1—Fletcher 30" Stainless, Suspended, Centrifugal, perforated basket, vaportite.
2—Sharples C-20 Stainless Super-D-Hydrators
1—Baker Perkins 21" Type S-21 Ter-Meer Centrifugal, 316 Stainless—NEW.
2—Sharples PN 14 Super-D-Canters, S.S. 316.
3—Vulcan, Allis Chalmers 8'x125' Rotary Kilns, motor driven.
3—Louisville 6'x50' Steam Tube Dryers.
2—Louisville 6'x25' Steam Tube Dryers.
4—Link Belt Roto Louvre Dryers, steel 502-16, 705-24; stainless 604-24.
1—Bonnet 7'x60'x½" Rotary Dryer, lifters.
3—Nickel Heat Exchangers (169) 7/8"x10' Nickel Tubes, 338 sq. ft.
15—Cupro-Nickel Heat Exchangers: 177; 346; 1035; 2330; 5200 sq. ft.
25—Steel Heat Exchangers: 189; 880; 1042; 2060; 3900; 4420 sq. ft.
1—Industrial Type SS-2 Stainless Pressure Leaf Filter, 195 sq. ft.
1—Niagara S.S. Filter, 54 sq. ft.
3—Sweetland #10, #12 Filters, Stainless and steel leaves.
18—Shriver, Sperry 18" to 36" wood; steel; aluminum. Filter Presses.
5—Sturtevant 14' Whizzer Separators.
1—Raymond 30" double Whizzer Separator.
10—Tyler-Hummer Screens, 4'x6'; 4'x8'; with Thermionic Controls.
4—Komarek-Greaves 27"x23" Briquetting Presses, Feeders & 75 HP motors.
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16—Alco type 316 S.S. jacketed kettles, 3000 gal. complete with agitators and drives, working pressure 50#.

2—Van Alst S.S. 400 gallon, jacketed kettles.

3—Van Alst S.S. jacketed reactors, 50 gallons with agitator and drive.

1—Theo Walter, 500 gallon S.S. jacketed reactor with agitator and drive.

1—Leader type 347 S.S. vertical storage tank 18,000 gallons.

1—Columbia Eng. steel pressure tank 2400 gallon, 265 psi.

1—Tippett & Wood steel jacketed kettle, 2500 gallons

2—L. O. Koven steel jacketed kettle with agitators, 750 gallons.

1—Procter & Schwartz—2 truck dryer.

1—Stokes S.S. jacketed rotary vacuum dryer 2' x 6'.

1—Stokes S.S. jacketed rotary vacuum dryer 3' x 15'.

4—Stokes steel jacketed rotary vacuum dryers 3' x 15'.

3—Pfaudler type 316 S.S. jacketed reactors, 750 gallons each, complete with agitators and drives.

1—Stokes steel jacketed rotary vacuum dryer, 5' x 30'.

2—Stokes single door vacuum shelf dryers—6 shelves.

1—Louisville rotary dryer 38" x 40', type L.

1—Steel rotary dryer 2' x 14'.

4—Link Belt steel roto louvre dryers, 207-10, 310-16, 310-20.

3—Louisville S.S. rotary dryers, 8' x 50', complete.

1—Louisville rotary steam tube dryer, 8' x 45'.

2—Louisville rotary steam tube dryers, 6' x 60'.

1—Sweetland #3 S.S. filter, 70 sq. ft.

12—Sweetland #12 S.S. filters with #72 S.S. leaves.

1—Niagara S.S. filter, Model 510-28.

1—Feinc S.S. rotary filter, 3' x 3' (new).

10—Davis Engineering type 316 S.S. heat exchangers, 170 sq. ft. (new).

1—Sparkler steel filter, Model #18D-8.

1—Shriver Rubber lined filter press, 36' x 36'.

1—Bird type 316 S.S. suspended type centrifuge 48' with perforated basket, complete with fume type cover, unloader and motor.

3—Tolhurst center slung 40" and 48" rubber covered centrifuge with perforated baskets.

1—Tolhurst center slung 30" rubber covered centrifuge with perforated basket.

19—Robinson S.S. powder blenders, 255 cu. ft.

2—Badger type 316 S.S. heat exchangers, 500 sq. ft.

1—Vulcan type 347 S.S. Bubble cap column 4' dia. with 30 plates.

1—Swenson single effect S.S. evaporator, 320 sq. ft.

1—Cleaver Brooks 500 HP steam generator, 150 psi.

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Bids Wanted

Ammonia, anhyd., 400,000 lbs., Spec. JAN-A-182, Bid IFB 174-67-59, Mar. 4, Naval Propellant Plant, Indianhead, Md.

Orange Oil, 480 bots., Bid IFB M5-92-59, Feb. 19, Marketing Div. for Technical & Scientific Supply, VA Supply Depot, Somerville, N. J.

Paint, 22,570 gals., coating compound, Spec. MIL-C-15329A with GSSO Spec. exception 8030-302, Bid IFB 155-2213-59B, Feb. 24, 42,084 cns., primer coating, Spec. MIL-P-8585A (QPL), Bid IFB 155-2230-59B, Feb. 26, 19,277 gals., lacquer, 41,781 gals., enamel, Bid IFB 155-2227-59B, Feb. 27, 12,600 gals., interior paint, Spec. JAN-P-702, Amend. 1, Bid IFB 155-2228-59B, Feb. 27, General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.

Potassium Hydroxide, 624 bots., Marketing Div., Drugs & Chemicals, VA Supply Depot, Somerville, N. J.

Sodium Phosphate, 360 bots., Bid IFB M5-90-59, Feb. 19, Marketing Div., Drugs & Chemicals, VA Supply Depot, Somerville, N. J.

Tetrachloroethylene, tech., colorless liquid, nonflammable stk. No. GF6810-270-9982, Bid IFB N140-560-59B, Mar. 4, US Navy Purchasing Office, 3rd Ave. & 29th St., Brooklyn 32, N. Y.

Trichloroethane, tech., 4,996 gals., Spec. Fed. QQ-A-327B, Bid IFB 155-2214-59B, Feb. 25, General Stores Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.

Oils, Fats and Waxes

—Continued from page 62

ket. Prompt shipment was lifted to $260 per ton, c.i.f. Pacific coast.

Fats and Greases

Greases—Business was confined to actual needs. Prices were unchanged and fairly steady. Yellow greases ranged from 6¾c. to 6⅞c., per pound, tankcars, delivered and choice white, all hog, 7⅜c. to 7½c., same basis.

Lard—Market was steady and higher. Cash lard was quoted at 9.37c. per pound, Chicago.

Tallow—This market was quiet. Prices were unchanged and well held. Bleachable fancy ranged from 7¼c. to 7⅜c. per pound, tankcars, delivered; prime, 7c. to 7⅛c.; special, 6⅞c. to 7c. and No. 1, 6¾c. to 6⅞c., same basis. Edible tallow was inactive and unchanged. Export interest was reported quiet. Guaranteed fancy was quoted at 8¾c. per pound, drums, f.a.s. and 7.85c., bulk.

Fish Oils

Cod—Replacements from Newfoundland were easy and quoted at 8c. per pound, drums, exdock, New York. Trading was reported fair but still spotty. Oil in bulk was named at 7⅝c., tankcars, f.o.b. Gloucester, Mass., for prompt delivery. Demand on spot was quiet. Drums ranged from 9¼c. to 9⅜c. as to quantity.

Menhaden—Trading continued inactive although export interest improved. Stocks were not heavy and quoted nominally at 7⅝c. per pound, tankcars, f.o.b. works. Refined remained unchanged and steady. Light pressed was quoted at 10½c., tankcars, New York basis.

Cake and Meal

Cottonseed Meal—Market quiet and lower. Meal, 41 percent declined to $68 per ton, sacked f.o.b. Memphis and $72 in the southeast, prompt shipment.

Linseed Meal—Resale offers weakened prompt delivery. Future deliveries unchanged.

Minneapolis.—Prices for prompt delivery declined $1 a ton under pressure of moderate re-sale offerings at slightly lower levels. Extremely light production and tightness in supplies checked further declines. Prices on deferred deliveries were firm. Withdrawals against old contracts continued at active pace. Extracted meal, 34 percent, was quoted at $75 a ton for February-March shipment. Old process expeller meal, 32 percent, was firm at $76 a ton for March forward, supplies limited until April.

Shipments of linseed meal, in pounds, were as follows:

	1958-59	1957-58
Past week	14,520,000	12,480,000
Since Sept. 1	322,760,000	331,020,000

Soybean Meal—Fair quantity of round-lot business in soybean meal was accomplished on the eastern trunk line and there was also active re-seller buying in the southeast and out of Decatur. Western market was comparatively dull except for noticeable pickup in f.o.b. plant truck sales. Prices for immediate delivery were easy. Crushing was maintained near peak rate though mills complained of unfavorable conversion. Future deliveries were $1 to $2 above spot. Meal, 44 percent, was held at $55 a ton, unrestricted, bulk, Decatur, for February delivery; $57 for March forward.

Waxes, Vegetable

Carnauba wax was stronger and higher as a result of the official announcement that the Brazilian government will finance the carnauba crop under a price support program which stabilized the market. This action was reflected locally and market rallied, advancing 1c. to 2c. per pound. Trading was better and took place at the higher levels. Improved business also was reported for shipment. No. 3, Ceara crude was raised to 72c. to 74c. per pound, spot, as to quantity and Parnahyba, 2c. more. Refined pure also was boosted to 80c. to 81c., same basis. Yellows was firmer. No. 1 Ceara was held at $1.11 to $1.13 per pound, depending upon quantity and Parnahyba, 2c. higher. Crude beeswax was quiet and unchanged at the recent decline. Refined beeswax declined 2c. per pound. Demand improved slightly at the lower quotations. Other waxes were unchanged and continued in light request.

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DALLAS (DAvis 1-0898)—John Printup & Associates, 2607 Millmar Drive, Dallas 28, Tex.

LOS ANGELES (DUnkirk 7-4388)—Robert W. Walker Company, 730 South Western Avenue, Los Angeles 5, Calif.

SAN FRANCISCO (SUtter 1-5568)—Robert W. Walker Company, 57 Post Street, San Francisco

FDA Fingers Colors

—Continued from page 3

month are under suspicion because of tests recently completed by the agency as part of the study it is making of the chemistry and pharmacology of all the certifiable colors.

The principal use of the latest list of suspect colors is by the cosmetic industry in the making of lipsticks.

Rats Fed Colors

The tests made on the colors by FDA involved 90-day feeding tests on rats, generally employing four levels of colors for 0.25 percent to 2 percent of the diets. The agency said that in the case of certain tests "the results appear quite significant and require reconsideration of their status as certifiable colors."

The following are the results announced by the agency:

- D&C Orange No. 5—One half of the animals on the 2 percent level died. Stunted growth at one percent and 0.5 percent level was observed. The higher levels produced a decrease in red blood cells.
- D&C Red No. 19—This color retarded the growth rate at all levels tested and caused 100 percent mortality at two percent within seven weeks. Liver damage was evident at 2 percent and testes were atrophied at 1 percent.
- D&C Red No. 9—This color produced enlargement of the spleen at all levels and lowering of hemoglobin in animals fed the dye at 1 percent and 2 percent in the diet.
- D&C Red No. 10 and D&C Red No. 33—These colors produced enlarged spleens at all feeding levels.
- D&C Orange No. 17—At 2 percent in the diet this color produced an anemic condition in test animals.
- D&C Yellow No. 7—At levels of 1 percent and 2 percent in the diet, this color produced granulation of the kidneys.

Pennsalt Expanding

—Continued from page 5

1942. The company's electrolytic process and equipment were designed and developed by Pennsalt chemists and engineers.

The unit has been expanded several times to meet growing demands in traditional markets and to supply the needs of the ammonium perchlorate expansions.

In addition to its interest in solid missile fuels, Pennsalt is also active in the propellant field through fluorine, perchloryl fluoride, and other fluorine derivatives, as well as organic nitrogen compounds.

Jobs & People

Allied Chemical Corporation, New York—**Harold C. Hansen,** manager of the General Chemical Division's Seattle, Wash., sales office, has been transferred to the top spot in the San Francisco office.

Beryllium Corporation, Reading, Penn.—**O. A. Wheelon,** a consulting engineer, has been named to the board of directors.

E. I. du Pont de Nemours & Co., Wilmington, Del.—Three men in biochemical sales have been given new assignments. **Dr. Joseph A. Evans** has been named product manager for insecticides and fungicides; **Dr. Burton B. Hodgen** has been promoted from a sales representative to sales promotion supervisor for insecticides and fungicides, and **Dr. Lyall F. Taylor** has been transferred to the Wilmington office as sales promotion supervisor for herbicides.

McKesson & Robbins, Inc., New York—**Carl R. Randolph** has been named sales manager for the drug division in Roanoke, Va. He succeeds **R. R. McGee** who has been named sales manager in Charlotte, N.C.

Merck & Co., Rahway, N.J.—**Frank W. Warren,** regional agricultural sales manager for the chemical division, will head the firm's new thirteen-state north Atlantic region.

Pennsalt Chemicals Corporation, Philadelphia—**John Seel,** formerly chief engineer at the firm's Calvert City, Ky., works, has been named manager at plant at Natrona, Pa. Replacing him at Calvert City is **E. Vance Winslow,** senior project engineer at the "Isotron" project.

Solvay Process Division of Allied Chemical Corporation, New York—**Solon D. Fisher** has been named manager of the division's St. Louis, Mo., sales branch. He succeeds **Elmer J. Seener,** who is retiring.

Union Carbide Chemicals Company, division of Union Carbide Corporation, New York—**Bruce A. Gustin, jr.,** formerly district manager for the firm's Boston district, has been promoted to eastern division manager.

U.S. Industrial Chemicals Company, division of National Distillers & Chemical Corporation, New York—**Kenneth Fietz,** a New York sales representative for the firm, has been appointed to had up the newly-opened San Francisco sales office.

Chemical Industry Watching March 7 Deadline

—Continued from page 3

dustry on this scope, are the comments of the Pharmaceutical Manufacturers Association:

"We believe the definition of the word 'safe' is unnecessarily absolute and that the use of the words 'convincing evidence' introduces a concept which is different from what congress intended and the language of the act itself.

"The reports of the senate and house committees referred to the requirement of proof of safety as being a 'reasonable certainty' that harm will not result from the use of an additive.

"We therefore suggested that the words 'reasonable certainty' be substituted for the words 'convincing evidence' so that this section will read:

" 'Safe' means that there is reasonable certainty that no harm will result from the intended use of the food additive."

There is also much objection to tying administration of the food additives law too closely to the policy statements of the Food Protection Committee of the National Research Council.

FDA proposes that unless evidence is available establishing that a different method and procedure will give equally or more reliable results, the commissioner in reaching a decision on any petition will apply the applicable criteria for establishing the safety of food additives as outlined by the Food Protection Committee in its publication "Principles and Procedures for Evaluating the Safety of Intentional Chemical Additives in Foods."

MCA's Proposed Changes

Typical of the changes proposed in this section that have been suggested, is this proposal of MCA:

"In reaching a decision on any petition filed under section 409 of the act, the commissioner will be guided by principles and procedures for establishing the safety of food additives as stated in current publications of the National Academy of Sciences-National Research Council.

"He will not deny a petition, however, by reason of the petitioner's having followed procedures other than those outlined in the publications of the National Academy of Sciences-National Research Council, if, from available evidence, he finds that the procedures used give results which demonstrate the safety of the material for the intended use."

A number of concerns engaged in the manufacture of packaging materials are urging FDA to modify its approach to controlling aditives so that the same tests and criteria will not have to be followed in the case of incidental additives as is required for intentional additives.

The law makes no distinction between the two types of additives, although the reports of the house and senate committees gave express distinction between the two.

Among those asking for changes in this section of the regulation are Hercules Powder Company, Wilmington, Del.; Celanese Corporation of America, New York; Adhesives Manufacturers Association of America; Society of Plastics Industry, and the film division of Olin Mathieson Chemical Corporation.

National Agricultural Chemicals Association and several others are concerned about the application of the regulations to concentrated quantities of chemical additives and want the regulations clarified so that there will be no question that foods in concentrated form will not be seized because the concentration raises the chemical content above the tolerance limit.

The governing rule should be the percentage of the additive in the processed food "when ready to eat," not in its concentrated form, they argue.

There are also a number of suggestions from organizations and individual companies urging the FDA to insert a provision in the regulations to allow for issuance of temporary tolerances.

This is to take care of experimental or marketing tests designed to learn whether a particular product is acceptable to the public.

Comments on various sections of the regulations are also filed with FDA by fourteen other chemical and drug firms.

Charles Wesley Dunn, counsel for the Grocery Manufacturers Association, submitted a statement of several pages consisting solely of extracts from letters from members of his association discussing various sections of the regulations.

Fluoridation of Water

—Continued from page 7

benefiting from fluoridation live in the larger cities.

What concerns HEW is the decline in the rate of community acceptance in the past six years. Community acceptance proceeded slowly from 1945 to 1950, the early years of the demonstration studies.

By 1952, however, most scientific and professional groups had examined the evidence and formally approved water fluoridation. That same year 243 communities instituted fluoridation programs.

Fluoridation's Peak Year: 1953

The following year, 1953, was the peak year during which 378 separate communities adopted fluoridation. Since 1953 the number of separate communities starting programs has dropped each year.

Only 110 places began fluoridation in 1957 and 131 in 1958. Moreover, the number of communities which discontinued fluoridation programs in the past five years has steadily increased.

Mr. Flemming says he can't understand why the fluoridation program hasn't spread, particularly in view of the fact that research has shown "conclusively that water containing a proper amount of fluoride reduces dental decay by about 65 percent."

He notes further that fluoridation is safe, effective, cheap and has the backing of the American Dental Association and the American Medical Association.

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